Information Warfare in Cyberspace:
The Spread of Hoaxes in Social Media
(*Case Study: Jakarta Gubernatorial Election 2017*)

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Abstract

The rapid development of information and communication technology brings significant change to human life. In the past, people have been getting information through conventional media such as newspapers, radio, and television. Today, the public relies heavily on digital media consisting of social media and online media that are in the grip within the internet network which provides wide-ranging information in speedy manner. The phenomenon of hoaxes in social media is part of the information warfare in the cyberspace dimension. Hoaxes as tactic of choice in propaganda defined as misleading information attacks to various aspects, covering to include health, economy, disaster-events, and politics. People who are lacking in understanding propaganda tactics like how the news and information addressed in the digital media are often fooled by hoaxes that maybe appear as texts, pictures or videos. The spread of hoaxes may get uncontrollable due to the many parties who deliberately spread the hoaxes for a particular interest with anonymous accounts, fake accounts and so-called bots. The transmission of hoaxes as global phenomenon today, affecting many countries. Hoaxes that are spread in cyberspace are difficult to control without solid cooperation between government and society. This means of bad intension today by spreading news used as an asymmetric weapon extensively exercised during any political election period. This paper is about an analysis of hoax cases occurred in the time of Jakarta Gubernatorial Election 2017 as a case study.

Keywords:
digital media; election; hoaxes; psychological warfare; social media.

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Introduction

Sun Tzu mention that all warfare based on deception, nowadays deception more often being used in the term of information warfare. Definition of information warfare according to Dr. Ivan Goldberg is the use of offensive and defensive information and information systems to fight, resist, exploit, destroy, or destroy enemy information, information-based processes, information systems and computer-based networks while protecting them. Measures designed to achieve profit from military or business enemies. (SANS Institute, 2003).

Libicki (1995) divides the information warfare into 7 parts:
1. Command & Control Warfare (C2W) is a strategy to divide the system of command and opponent control.
2. Intelligence-Based Warfare (IBW) is Intelligence or Counter-intelligence Strategy, knowledge-based attacks / information in order to dominate the opponent's fighting forces, inside or outside the battlefield.
3. Electronic Warfare (EW) is a strategy to interfere with or damage electronic systems / cryptographic systems versus using electronic devices or cryptography.
4. Psychological Warfare (PSYOPS) is a strategy to influence the mind of the opponent, as well as the mind of friends to be impartial to the opponent.
5. Hacker Warfare (HW) is the activity of attack or destruction of information systems and computer networks of opponents.
6. Information Economic Warfare (IEW) is an activity to cover, obscure, and deceive data and information to achieve the dominance of the economic aspects of the opponent.
7. Cyber Warfare is a coordinated and massive digital assault attack carried out by State actors or non-state actors to disturb or destroy others country's cyber capacity.

In the context of a deliberate deception distribution with creators that is directly spread is part of Psychological Warfare (PSYOPS), Psychological warfare involves the use of propaganda and other psychological operations that planned to influence the opinions, emotions, attitudes, and behavior of enemy. Jacques Ellul (1965) defines propaganda as communication that is used by a group of organizations that seek to create active or passive participation in individuals mass actions, psychologically and joined in a set of organizations.

As Clausewitz wrote in his book that war is a continuation of politics in other ways, competition in politics is also a war zone, especially when it comes to election time. In the book "The Art of War", Sun Tzu mentioned that 'all warfare based on deception' or as we can say the art of lies. At present, it is easy to choose as a political strategy due to reason that the only way to attack the enemy and win the election is by telling lies as black propaganda and exploit anonymity on social media.

The focus of attention on the value of an information will be measured from true or false. Interference with information can come in many nuances that are misleading. Fraud in the form of information disruption can be divided into 3 categories;
1. Mis-information; false connection, misleading content.
2. Dis-information; false context, fabricated or deliberately manipulated content.
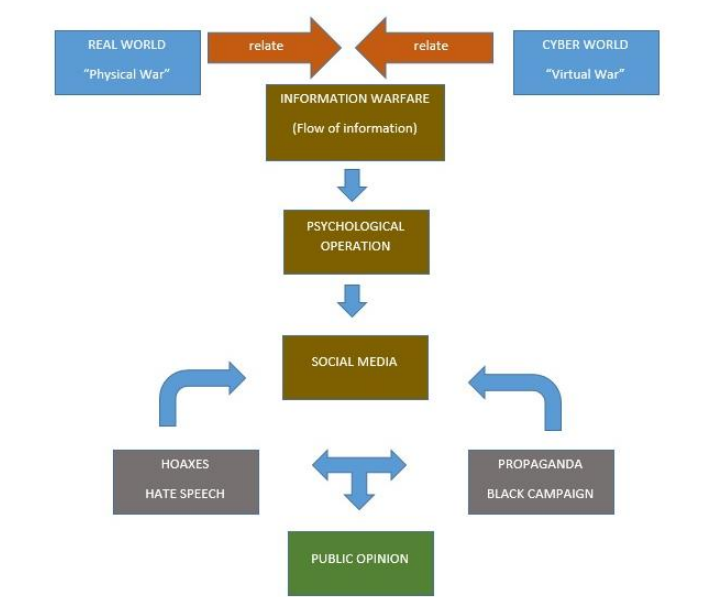3. Mal-information; genuine information designed and shared to cause harm.

Black propaganda is false information and material intended to originate from sources on one side of the conflict, but from the opposite side. Usually used to denigrate, humiliate, or misrepresent enemies (Doob, 1950). Black propaganda in political campaign is also closer to black campaign which have a direction to exploit the reputation of the opponents by slandering and deception especially today on social media.

Taprial and Kanwar (2012) define social media as media that enable a person to become social, or get social online by sharing content, news, photos, and many other forms with others. Nowadays social media is a very effective tool in spreading deception because it is cheap, currently has a weak legal basis, and is very interactive to be manipulate. Rosenweig (2013) argues that individual activities in the cyberspace are full of risk. Conflict on the internet is believed to be an endemic spread. Endemic conflicts that spread on the internet allow transmission of conflict that spread from the outside; other effects of can be very consequential. This vulnerability involves policymakers, lawmakers, and technologists. They continue to work to fix problems in cyberspace, hoping to eliminate them altogether.

As can be seen from Figure 1 below; in this post-truth era, psychological operation on social media take part to change people's opinion especially during the election period. For propaganda propagators to change the way people think, they must understand how people think and in what mode they think. So basically, the propagandist also gets what the society likes and what society dislikes. In addition, on social media there is an algorithm used as database to find out and understand people's preferences.

One of the most famous examples of deception is the claim that President Joko Widodo had plans to bring 10 million Chinese workers to the country, placing Indonesian' worker in danger. Many examples of fake news may seem silly, hoaxes cause serious damage. Unfortunately, this does not only occur in Indonesian democracy but also attacks other democracies. This can be considered cancer in civilization terms.

Figure 1.
Hoaxes Framework of Information Warfare in Social Media

Source: (Yusuf, 2017)

Alcott, et al. (2017) explaining Trump's victory has been filled by claims that hoaxes, there have been false reports that Hillary Clinton sold weapons to ISIS, and the pope has supported Trump to change the outcome. Facebook and other social media sites are also blamed for allowing fake news stories to be circulating on their platforms. They illustrate how fake news had a significant impact on the 2016 presidential election in the United States. But this research does not mention about the psychological aspect of audiences who devour fake news. This research is to show that black campaign that was used in the social media during the election period has created polarization in society.

As quoted in (ABC News, 2016), titled "Fake news in social media influenced US election voters", expert said; Mark Zuckerberg as *Facebook's* CEO avoided *Facebook's* assumption as hoaxes spreading repository and refused alterations in the presidential election. Zuckerberg's response to Mark Pearson, a professor of journalism and social media from Griffith University, said that there is several false information circulated on *Facebook* and other social media, hoax information during election campaign on the elected President Donald Trump and the Democrat Party's presidential candidate Hillary Clinton are widely circulating in the social media. The information warfare was circulating amid sensitive issues such as Islamic State of Iraq and Syria (ISIS) monetary funding and the secret talks of presidential candidate Hillary Clinton were played during the US presidential election. The hoax-charged content is believed to sway the vote of the voters of the presidential election in the United States.

This also happens in the case of the French presidential election where French voters had been warned not to let false news or hoaxes influence their voices in Sunday's high-level presidential election after a massive leak of documents hacked from the pioneer campaign of Emmanuel Macron. Emails and Financial data are discarded online just minutes before the campaign outage starts at midnight on Friday. The election commission urged the media and French citizens "not to relay" the leaked documents, which he said were mixed with fake news, "so as notto change the sincerity of the vote." (Mulholland, 2017).

Unlike the United States and French which implements a democratic system holistically; the Russian government has even classified the information warfare in the cyberspace and named is as deceptions tactics (hoax/fake news) or a form of traditional propaganda attacks. The purpose of this propaganda is not only to convince or invite audiences, but to weaken Russian Government. Instead of moving audiences to a movement, they actually plan to create a crowd that is addictive, disturbed, passive and scared. The Russian government classifies this as an information-psychological warfare. This tactic is also used to disrupt and reduce the opponent's self-esteem. This kind of war is fought in the realm of human perception and thought. Such strategies are also applied both in peacetime and in wartime (Lucas, 2016).

Problems that occur in some Gulf countries in the post-Arab spring period, it can be understood that the lies and hatred on social media as negative propaganda won the hearts of the people in massive mobilization. The phenomenon of Arab springs is also raised to have implications for the political constellation in the Middle East today (Aday, et al, 2012).
This paper defines "false news" or "hoax" which is deliberate and untrue information and has intentions to mislead the readers. This paper also focuses on deception that has political implications by using the perspective of information warfare to analyze and examine its impact on the 2017 Jakarta Governor Election. The originality of this research focuses on the aspects of information warfare in the context of black propaganda through hoaxes that were

spread during election campaigns on social media. The fact that there are those who deliberately do business by spreading hatred to the internet and how people could only survive from false information by increasing digital communication literacy.

Hoaxes in Jakarta Gubernatorial Election 2017

Figure 2.
Indonesia Statistical Indicators

Source: (We are Social, 2017)

Following the statistic shown in Figure 2; it was recorded that 106 million or 40 percent of the total population of Indonesian citizens have actively using social media. Among those social medias, *Facebook* ranks the highest and the most frequently accessed by Indonesians, which is 54 percent of total internet users or 71.6 million users and comes second is *Instagram* with 15 percent or 19.9 million users. The social media platform is used by its users as a forum for publishing information publicly in literature, and audio-visual. (APJII, 2016).

Even so, the use of social media may not always positive, there are always some who use social media to spread slander and lie. Kusumasari (2014) also mentioned that the use of social media has played important role on how people are participating in politics. The distribution of hoaxes in social media is one of the politics phenomena that has been felt by many countries. Cheap and effective propaganda especially in opposing a regime is conducted by disseminating false information through the social media. Marlyn Lim (2017) explained the social media algorithm correlation with the freedom of voicing hatred. In this study Lim describes the polarization in society as a result of political parties' branding and excessive election candidates in the social media. There are a lot of research evidence on social media that function as a propaganda forum. Content that is used in addition to a number of supporting shows, is often infiltrated with lies or hoaxes, and hate speech.

Based empirically on the 2017 Jakarta Governor Election case, social media played significant roles in the election. Social media such as *Facebook*, *Twitter* and *Instagram* which were widely used during the campaign, contributed to the increasing polarization among Indonesians. Unfortunately this polarizations does not only occur in Jakarta, but also spill over to other regions in Indonesia.

In Indonesia, information that is not in accordance with the fact is now popularly named as 'hoax'. In the Indonesian Dictionary KBBI, the word hoax is absorbed into the word '*hoaks*' which means 'false news: collection or passing through many mailing lists'. (KBBI, 2017)

Characterized by the use of volunteers, buzzers, and micro-celebrities, the Pilkada DKI (Jakarta Governor Election) exemplifies post-truth politics practices as brand marketing. While encouraging freedom of expression, social media also encourages freedom to hate, where individuals exercise their right to voice their opinions while actively silencing others. (Lim, 2017:411).

Hoaxes cannot be separated from the habits and psychology of modern society today. Most deceptive messages can become viral because someone who wants to be the first to spread information, seeks sensations, without a critical approach to the information obtained and immediately reposts or shares the news. Hoax also occurs because of technological advances that are not matched by adequate education in Indonesia.

Shahram Heshmat, an economic behaviorist from the University of Illinois, explained the relation between confirmation bias and the direct influence of desire on trust. When it comes to the idea of seeing is believing, people will produce certain ideas or concepts that will eventually become true and trusted. They are motivated by wishful thinking. This error makes individuals stop collecting information when the evidence gathered so far confirmed the view that they want to be right or just a prejudice. Confirmation bias in receiving information makes people neglect about how something actually happened. Then, 'echo chambers' become additional factor. 'Echo chambers' is a concept of how the information spreads from one to another like an echo, and social media is the known echo chambers of today.

In 2017 the Directorate of Cyber Crime POLRI recorded at least 900 reports of hoaxes and hatred speeches. MASTEL noted that 91 percent of the lies in circulation are about politics and have increased during the election. Hoaxes and Hate Speech can certainly change the way people look at the candidate pairs who are running for the office. This change of perspective can also shape public opinion about the election candidates.

Methods

This research uses a qualitative method while describing descriptively the problem and placing an analysis that is systematically built around lies on social media which places further examination on the 2017 Jakarta Governor Election. The data collected in this research found through in-depth interview, literature studies and from mass media articles that published issues related to lies and hate speech. Primary data was taken from Ministry of Communication and informatics (Kominfo), Indonesian National Police (POLRI), Masyarakat Telematika Indonesia (Indonesian Telematics Society - MASTEL) and Asosiasi Penyelenggara Jasa Internet Indonesia (Indonesia Internet Services Provider Association - APJII) are also used to present constructive argument in this research. Then, all the data was analyzed through framework constructed from secondary data such as academic journals and published books. By using the methodology mentioned above, this paper can present results that correlate with problems in the information warfare in cyberspace mostly on social media especially from the case of 2017 Governor Election. Consequently, the paper proposed alternative of counter hoaxes to be applied in the future which are also useful for stakeholders as a result of research. The alternative concluded as the right solutions in approaching cyber-awareness, especially in Indonesia.

Findings and Discussion

Today's technology shifts the conflict from traditional methods to non-traditional, including the use of information. Information warfare offers various technological capabilities. Information technology today has become a real weapon of choice, which is economically inexpensive and not ecologically dangerous. Conflict in the future will be very different from conflict in the past. The main threats to national security may come from entities that may not always originate from the concept of the nation-state. (Devries, 1997)

In Indonesia according to the result of respondents' report (Mastel, 2016) has shown that the majority of hoaxes spread in articles as much as 62.20 percent, in figure 37.5 percent, and in video 0.40 percent. Distribution channels are the same as on the radio 1.20 percent, on e-mail 3.10 percent, on newspapers 5 percent, on television 8.70 percent, on website 34.90 percent, on chats application 62.80 percent, and on the social media 92.40 percent.

The result of this research is that deception and hatred on social media are very dangerous for national security. To change public opinion about candidates with black propaganda and campaigns, the implication might be worse when forming divisions among the people. In the Dutch-Indonesian colonial era those events known as "*devide et impera*" when people between nations were forced to fight each other.

In black campaign election does not need necessary to be done directly by the candidates, but there are supporters who spread the black campaign on social media by attacking the opponents with hoaxes and hate speeches. Some believes this as a reliable way because some are cheap and are considered to have minimal risk. In the Election Supervisory Board (*Bawaslu*) regulations only prohibit candidates' official accounts from spreading lies or hating speeches but not their supporters. Many anonymous and so called robots accounts and bots are used during the campaign period which can only be prevented by cyber patrol from the Police and the Ministry of Communications and Informatics which sometimes have to wait for reports sent by public members before committing cyber patrol.

Basuki Tjahja Purnama (Ahok) had become the Governor of Jakarta when Governor Joko Widodo (Jokowi) was elected President of the Republic in 2014. Ahok continued to run for re-election for a second term as the Governor of Jakarta with his Vice Governor, Djarot Saiful Hidayat. In the first round of voting on February 15th of 2017, Ahok won approximately 43 percent of the vote, followed by the former Education Minister Anies Baswedan with 40 percent and Agus Harimurti Yudhoyono with 17 percent. Ironically, Ahok lost the second round of elections on April 19th because of Anies, at 57:43 margin.

Based on the data in Table 1 regarding negative complaint reports submitted to the Ministry of Communications and Informatics (Kominfo) in early 2017, the Minister of Communications and Informatics, Rudiantara said lies or fraud generally increase during elections, including during 2017 elections.

Table 1.
Negative Complaints Report Hoaxes and Hate Speech

Month	Hoaxes	Hate Speech
January	5,070	5,144
February	658	1,650
March	111	561
April	102	476
Mey	278	1329
June	286	1144
July	127	403
Agustus	203	864
September	658	3490
Total	7439	15064

Source: (Pangerapan, 2017).

In the first round, while there were three candidates during the election, the numbers of hoaxes was very large and even reached above 5000 incoming reports. Entering the second round, even if there is a significant decrease, this decrease does not mean the domino effect of hoaxes and hatred speech also stops there.

Prayitno Ramelan as an intelligence operation expert observe that in Indonesia he believes black campaigning has played a big role to change the public opinion or at least influencing the perspective of voters with the problem of blasphemy. On September 27th 2016, Ahok's speech in his working visit on Pramuka Island, Thousand Islands, was once considered offensive to one major religion in Indonesia.

On October 6th 2016 Buni Yani uploaded a video recording of Ahok's speech on his *Facebook* account, titled 'Blasphemy of Religion?' with the transcript of the edited speech of Ahok who thought that the word "use" or means "*memakai*" was deleted which could then change the entire meaning of the speech. Buni Yani alleges that Ahok spread the blasphemy by claiming that some Islamic scholars mislead the understanding of the Al-Quran of Surah Al-Maidah verse 51.
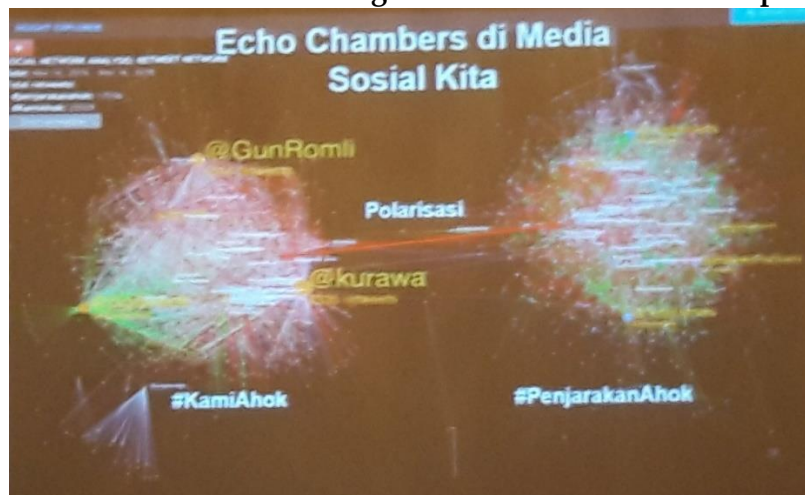
Picture 1.
The demonstration during Jakarta Gubernatorial Election
Containing hate speech to blame Chinese Race

Source : (Facebook, 2017)

Following the incident, the Islamic Defenders Front (Front Pembela Islam – FPI) and the Indonesian Ulama Council (Majelis Ulama Indonesia - MUI), submitted Ahok to the Police of the Blasphemy Law. As a follow-up to the Ahok file process, the so-called "*Aksi Damai* or Peace Action" was held on November 4th and on December 2nd, 2016 to hold mass demonstrations in Jakarta to encourage legal proceedings to be carried out on file.

Picture 2.
Twitter Echo Chambers during Ahok's Trial in case of Blasphemy

Source: (Pangarepan, 2017)

If one would rely their study based only by looking to the internet traffic, not all support and justification to the allegations to Ahok are believed by the public that it was really is all a crime. As illustrated in Picture 2, based on observations in the twitter world, there is a very strong faction between support to Ahok #kamiahok (we are Ahok), and support to bring Ahok to justice and imprisoning him using #PenjarakanAhok (imprison Ahok) proved that polarization in the community is clearly visible.

Later we learned there was a group of professional propagandists who spreads hoaxes and hate speeches named Saracen later caught by the police of spreading political hoaxes and hate speeches. The hate speech business makes profit by provoking through deception that is constantly produced to order. They disseminate content that condemns ethnic, religious, racial, or political views that in conflict with their customers. (Saraswati, 2017)

The emergence of syndicates such as Saracen may not be separated from political phenomena that have occurred since 2014. Then the Saracen volunteered to be a tool of war for ideological forces opposed the government. The police arrested three of Saracen members. Through social media, such as *Facebook*, and *Twitter*, Saracen disseminates hate speech content by managing special news site to satisfy its readers. The police confirmed that the hate speeches delivered by the Saracen syndicate came at the behest of political parties. They charge each order more than 10 million Rupiah for their services.

Hoaxes can easily become viral because of the number of social media users or so-called *netizens* who do not know that there are legal rules and norms for interacting in the cyberspace, especially on social media. In the process of law enforcement in Indonesia hoax and hate speech can be imposed by the regulation No. 1 Year 1946 concerning Criminal Law Regulations, and also No. 19 Year 2016 concerning Information and Electronic Transaction.

President Jokowi suggested a solution that was more focused on eliminating ego, on the other hand increasing netizens' commitment and the personal responsibility while following the news or a speech. He also encouraged the national movement to improve digital communication literacy, education, in order to safeguard the ethics and civilization of *netizens* in social media.

O'neil (2017) invites us all increasingly wary of the negative excesses of misguided logic algorithms in social media. The consequences exacerbate these three things: causing the spread of false news, deceiving messages and misguided information through social media in this information warfare era.

There's no other choice but to increase the literacy of digital communication to the public to makes Indonesia have a strong resistance to deception and other negative content that spreads every day. The concepts and dimensions of digital literacy proposed by Riel et al (2012) are technologically, psychologically and socially charged. Thus, it can be understood that digital literacy is a form of complex skill form and involves new skills that human must deal with today's digital environment.

This hoax and fake outbreak of does not mean that Indonesia is still consolidating their democracies. It is also a matter of a long tradition of liberal democracy, such as the United States. The Jakarta governor election exemplifies the practice of information warfare especially psychological operation to get more votes to win the election. To highlight these points, it was also found that there was even an organization that tried to make a business out of creating propaganda by spreading deception or hatred on social media. During the election period, hoaxes and hate speeches that spread on social media encourage users to changes their views of canditates.

So it is certain that information warfare especially the spread of deception and hatred must be seen as new fundamental direction in analyzing how social media is now a determining factor in political constellation in Indonesia and also for the whole world.

This paper limited the issues that being explained regarding contemporary analysis of information war in Jakarta governor election using propaganda, black campaigns along with deception and hate speech in social media. Although it has been mentioned on the paper about

certain schemes to deal with lies and hatred, there is a need to elaborate further on the impact of propaganda on national security and how the effective strategies to counter propaganda during elections.

Conclusion

Information Warfare goes back as far as humans themselves. Over the time, today's information warfare becomes complicated. The use of information as a psychological operation such as telling false information through hoaxes has been used by many actors in countries all over the world. Even businesses are involved in Information Warfare, as are ordinary citizens. The only difference is the extent to which it is involved.

In many democratic countries, the situation has been exploited by figures who claim to speak on behalf of the majority and free speech, especially in Jakarta governor election which directs the anxieties and fear caused by social dislocation toward immigrant "threats", minority or majority domination, or foreign intervention in politics. In this way, facts become blurred to broader political objectives.

Social media did not cause the divisions among voters in this election. However, because politics has become increasingly entangled with social media, online and offline political speech and actions are no longer separate. In the era of Information warfare especially in cyberspace we must increase our awareness to filter information. Information warfare especially in the psychological aspect must be considered a political strategy. In the case of Jakarta Governor Election case, it is evident that propaganda of deception or hoaxes and hatred in the form of hate speeches plays a dominant role in the outcome. In addition, it can be understood that the problem has an impact to national security and trust among the people.

To prevent the escalation of conflicts among the people through social media related to the election of governors, the development of technological infrastructure must be balanced with the idea of digital content. Negative content such as hoaxes, cyber bullying, and hatred must not absorbed by the public. There should be disagreement from public about lies as well as that is must involve everyone including the executive, legislative, religious leaders, and younger generation by increasing media literacy against lies.

Stakeholders must disseminate digital communication literacy so that people can access, sort and understand various types of information that can be used to improve the quality of life. The author recommends through formal channels by preparing a digital literacy curriculum for schools up to university need to include knowledge on how to filter false information.

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