New Duties of Intelligence Agency in Response to the Pandemic of COVID-19

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Abstract

**Purpose:** During the pandemic of COVID-19, we have again felt the importance of 'information' and have also realized that medical and scientific technology alone cannot control the pandemic caused by disease. Hence, it is intended to discuss the role of intelligence agency under such uncertainties.

**Method:** In order to study such social phenomena, the pandemic of COVID-19 situation has been analyzed over the past two years as well as the methods to collect the necessary information through many existing literature and data. The analysis attempted to interpret the meaning of the phenomenon through the intuitive insight of the researcher.

**Results:** The result is that people’s lives, as with COVID-19, may become insecure and unpredictable overnight. Furthermore, despite medical and scientific technology and development, the COVID-19 virus has expanded to delta mutations and omicron mutations, and hence, it is still unknown as to when this uncertain situation will end, which will have a direct impact on the national security.

**Conclusion:** It is of the view that the medical and scientific technology alone cannot control situations such as the pandemic of COVID-19, and the ‘power of intelligence’ to prepare for and against such scenarios in the future should be supported, and this duty will become a new task for the intelligence agency.

[Keywords] COVID-19, Pandemic, National Security, Intelligence Agency, Duties

1. Pandemic of Covid-19 and Uncertainties

On January 2, 2020, a medical team led by Dr. Chaolin Huang of Jinyutan Hospital in Wuhan City, Hubei Province, China reported that 41 patients in Wuhan City showed pneumonia symptoms caused by the novel coronavirus in the medical journal of “The Lancet” for the first time[1]. Thereafter, on January 30, 2020, the World Health Organization (WHO) declared an ‘international public health emergency,’ and on March 11, 2020, the World Health Organization declared a global infectious disease ‘pandemic’ of COVID-19.

The COVID-19, which started in the Wuhan region of China, has brought many changes to our lives for two years as a disaster for the mankind. The overall contraction and disconnection of the economic system due to the COVID-19 pandemic, the chaos of the international order, the decline of globalization, and the intensification of competition have also revealed the vulnerability of democracy and nationalism such that ‘We first’ for the hegemony of the United States and China has also shown to be vulnerable[2]. The world is at a new point of inflection in the international relations and globalization as the world goes through the pandemic of COVID-19[3][4].
'Uncertainties' such as the pandemic of COVID-19 make all citizens, including governments and businesses, very uneasy, but amidst this, we have again felt the importance of 'information', and in this pandemic of COVID-19[5][6][7][8][9], the intelligence of each country has the role of the agency for granting new duties after going through cyber warfare with the advent of the Internet from the traditional Humint of the Cold War era.

As such, the role of the intelligence agency is to overcome the crisis by exerting how much information it has in the national security crisis caused by group infections caused by viruses as well as tangible threats such including war, terrorism, and cyber attacks.

Hence, this study seeks to discuss the change in the role given to each country's intelligence agency, and the way to overcome the threat of the pandemic of COVID-19 which has struck humanity at the beginning of the 4th industry is 'information'.

2. Advancement in the Science and Medical Technology Industry and the Pandemic of Covid-19

2.1. Development of the industry

The 4th industrial revolution refers to the next-generation industrial revolution led by such information and communication technologies as artificial intelligence (AI), Internet of Things (IoT), robot technology, drones, autonomous driving and virtual reality (VR)[4], and entering the era of the 4th industrial revolution, medical technology develops rapidly, and with the aftermath of the pandemic, the public demand for medical services is gradually increasing[10]. As intelligent systems are integrated across every aspect of our lives, the revolution is expected to bring about cultural and social change on an unpredictable scale to date.

The Industrial Revolution, which first began in England, began with the 'triangular trade', in which alcohol and textiles were exchanged for slaves in Africa with the discovery of the Americas, and the slaves were used as human resources to secure capital through large-scale sugarcane plantations in the Americas, as a matter of dominant opinion.

The process unfolding into the current 4th industrial revolution is as follows.

① The first industrial revolution was a mechanization revolution based on steam pipes during the 18th century, and it was mass production of the British textile industry using steam engines.

② The second industrial revolution was a mass production revolution based on electric energy from the beginning of the 19th and 20th centuries, and power was supplied to factories and mass production using belt conveyors.

③ The third industrial revolution was the universal expansion of the Internet and smart devices due to the rise of global IT companies as a knowledge information revolution based on computers and the Internet from the late 20th century.

④ The fourth industrial revolution is a super-intelligent revolution of all things based on AI and Metaverse since 2015, bringing people, things, and spaces towards hyper-connection and super-intelligence to bring about a revolution in the industrial structure and social system.

Currently, the fifth industrial revolution, also known as a super-smart society which utilizes artificial intelligence for medical manufacturing and logistics, is undergoing discussion beyond the 4th industrial revolution[11].
The 4th industrial revolution may be characterized by 'technological convergence in various fields' and 'very fast pace of development', and medical care is no exception[12].

There are claims that we may fall into an ethical dilemma, but the medical community believes that with the help of AI and technological convergence of the 4th industrial revolution, we can restore our humanity and have an opportunity to show our original creativity.

2.2. Damages caused by Covid-19

2.2.1. Casualties

According to the data released by the Korea Central Disease Control Headquarters, as of 00:00 on February 23, 2022, there were 171,271 new confirmed cases in Korea and 181 cases imported from abroad, resulting in a total of 171,452 newly confirmed cases, while the total cumulative number of confirmed cases is 2,329,182 people (28,554 people from overseas).

Furthermore, while hospitalized, 512 patients with severe symptoms and 99 deaths were reported, with a cumulative death toll of 7,607 (fatality rate of 0.33%), respectively.

Given the recent rapid increase in the number of confirmed cases and the shortage of acceptable beds, home treatment is increasing. As the COVID-19 patients undergoing home treatment die one after another, concerns about the blind spot for home treatment are increasing.

2.2.2. Economic damages

COVID-19 has brought about an economic crisis along with the direct damages of infection. As contactless consumption became active, there were industries where sales did not decrease or increased, yet the awareness of the risk of infection restricted individual and group actions, and social restrictions due to quarantine measures added to a sharp decrease in consumption[13]. After the outbreak of COVID-19, sales plummeted mainly in face-to-face service industries such as food and accommodation, wholesale and retail, and education service, which led to an employment shock.
As unstable employment and income conditions continue, economic uncertainty increases stress, and stress weakens the immune system, thereby raising concerns about a vicious cycle of increasing the risk of infection\textsuperscript{[14][15][16]}.

\textbf{Figure 2}. Small business owners’ demand for 100% of loss compensation and protest.


\subsection*{2.2.3. Other damages}

Less than a year after the COVID-19 pandemic was declared, a new record was set in global health governance with the development of COVID-19 vaccines.

While over half of the world’s population has completed vaccination against COVID-19, many people complain about side effects from the vaccinations, but it is not easy to prove direct causation, and conflict over whether compensation is further intensifying.

According to a report by Seoul Economic Daily on February 22, 2022, in the case of the United Kingdom, if side effects of the vaccine are recognized, a lump sum of 120,000 pounds (approximately 200 million won) will be paid in cash. Countries around the world are reviewing ways to compensate for the adverse effects of COVID-19 vaccination, but those who suffer from vaccine side effects in most countries and their families still find it difficult to escape from the difficult situation of proving the causality of vaccine side effects.

\section*{3. Limitations of Science and Medical Technology}

COVID-19 has brought many changes to the people’s lives in such a short period of time, but the largest has been that the people’s lives may become insecure overnight, and the future is uncertain indeed. From the moment when COVID-19 became a pandemic, it is natural in this sense that an attempt to predict ‘post-coronavirus’ and find something certain that can guarantee people’s lives in the midst of it started.

However, despite the development of science and technology and industry, the COVID-19 virus, which started in the Wuhan region of China in 2020, has expanded to delta mutations and omicron mutations, resulting in numerous victims as of 2022, which is two years later. As a pandemic, it is of the view that national security and the economy related issues cannot be resolved.

Since the proliferation of such innovations alone can entail safety-related risks and uncertainties\textsuperscript{[17][18][19]}, it is of the view that ‘power of intelligence’ should be supported for such ‘uncertainties’, and such duties will be a new task for the intelligence agency.
4. Humanity and the Emergence of Intelligence Agency

Men wanted to live safely and away from wild beasts or natural disasters in the ancient society, but the discovery of tools in the Neolithic Age started a collective life consisted of clans and tribes through rice cultivation[20]. As a result, wars occurred with adjacent clans and tribes, and the role of information necessary to establish war strategies began to emerge.

1. Discovery of Neolithic tools
2. Farming rice began by using tools and a group life consisted of clan and tribe began
3. Wars with adjacent clans and tribes began
4. The role of information needed to formulate war strategies began

Figure 4. The neolithic age of greece.
Carl von Clausewitz (1780-1831) described national security as the act or state of forcing the will of the opponent by using all means, including military force, between opposing countries or groups equivalent thereto. Furthermore, it was defined as the continuation of politics by forcing the will of ours. As such, it may be seen that extreme national security crises such as war have a close correlation with politics.

A past example is the Sarajevo Assassination of 1914. The Sarajevo Assassination caused World War I, followed by World War II, which then led to the Cold War, the Middle Eastern War, the invasion of Afghanistan and the ISIS. If, in Sarajevo in 1914, Gavrilo Princip obtained information on an assassination plan for Archduke Erzherzog Franz Ferdinand in advance, how would the history of mankind have changed if the assassination was unsuccessful?

5. Development of Intelligence Agency

Military strategy has walked together with the beginning of mankind, and according to the flow of history, the security agency is separated from the military and the intelligence agency has come to be with the change of the security agency[21].

① Ancient Greece: The police were all activities of the city-state (Polis), meaning the constitution itself.

② Middle Ages: Under the German Imperial Police Act of 1530, the first concept of the police was specified as ‘a state of good quality in the community’.

③ Era of Police State: In line with the times when a mercantilistic economic policy was promoted based on an absolute monarchy, the police included not only passive order maintenance but also active welfare promotion functions, and when police included state power which is exercised over all administrative areas except for special administrative fields such as diplomacy, military, finance, and judicial affairs. Meanwhile, the Steinerian concept of police was divided into constitution and administration, and administration is a means of national activity that pursues individual improvement, and constitution refers to the state’s right to participate in national decision-making or the policy making stage.

④ Modern state ruled by law: Since the 19th century, the concept of the police in the era of free democracy was based on the liberal ideology of natural law and was limited to the operation of military force to maintain public well-being and order.

⑤ Modern society: Based on the maintenance of social order and protection of life and property, it is the prevention of crime, the arrest and investigation of criminal perpetrators, the recovery of theft and lost property, the assistance of the weak and sick, the enforcement of criminal laws, and public services for the local community.

Furthermore, the military organization has established itself as an individual institution by being specialized according to the characteristics of its work, such as security, security, intelligence, firefighting, etc[22][23][24]. However, it can be seen that the fact that they still maintain a close mutually cooperative and complementary relationship started from the same purpose related to national security.

6. Current Status and Role of Intelligence Agency
As shown in <Figure 5>, this is because the DNI learned the painful lesson that the 9/11 terrorist attacks, which claimed the lives of more than 3,000 Americans on the mainland of the United States, were carried out because intelligence agencies were aware of the information in advance but did not properly share it. There are currently 16 official intelligence agencies in the US federal government. CIA, DIA, NSA, NGA, NRO, AFISRA, INSCOM, MCIA, ONI, FBI, DEA, ONSI, I&A, CGI, OICI, INR, TFI acting independently. According to Reuters, the CIA had information about three of the 19 hijackers 20 months before the 9/11 attacks, and the NSA learned that one of the hijackers was linked to Osama bin Laden's al-Qaeda. The CIA did not tell the FBI that one of the hijackers had entered the United States, but the FBI knew that suspicious Middle Easterners were learning how to fly. In order to solve the problem of information sharing among intelligence agencies, Congress enacted the Information Reform and Anti-Terrorism Act in 2004 and established the Director of National Intelligence to lead 16 U.S. intelligence agencies. The DNI directs and oversees the U.S. national intelligence program, reports national security information directly to the president, and serves as the head of all U.S. intelligence agencies. The director of the CIA, synonymous with US intelligence, is also required to report CIA activities to the DNI. In addition, NCTCC was established to have CIA, FBI, and Ministry of Defense intelligence agencies gather together to share and analyze national security information. They were invited to attend and discuss national information. The budget for US intelligence agencies has more than doubled compared to before the 9/11 terrorist attacks. 70% of this budget goes to information collection and analysis, and intelligence agencies work under contracts with sub-governmental organizations or private companies. According to the Washington Post, as of 2010, there were 1271 government agencies and 1931 private companies in the United States engaged in anti-terrorism, homeland security, and intelligence activities, and 854,000 people held top-secret licenses. The NSA is known to be able to monitor up to 75% of Americans' emails and phone calls. Therefore, the mission of the pandemic that threatens national security as well as terrorism is newly presented to intelligence agencies.

7. Future of Intelligence Agency: Development into Private Industry

Recently, as the activities of PMFs have increased in various conflict zones around the world, the phenomenon of outsourcing of war is intensifying. The use and control of military force was the sole property of the state (government), but as recently shown in Iraq and Afghanistan, non-state entities such as rebels and international terrorist groups are emerging as major actors in war or armed conflict. Because they are not states, they tend to wage war for their own identity...
and beliefs rather than pursuing national interests. In addition to these changes in actors, as cutting-edge technology is used in warfare, a great change is taking place in the way war is waged. As a result, there is a discussion about the change in warfare. This study examines how the alliance between the state and private military companies pursuing corporate interests, not national interests, will change the nature of war, what conditions will make this alliance possible, and the Corona 19 pandemic like future wars. Demic should consider how it will change in the future.

Therefore, considering the impact of a global pandemic such as Corona 19 on national security in the future, it can be seen that it is difficult to respond to Corona 19 without the help of the national intelligence agency, as long as it has been proven that this mission is difficult for the health authorities to handle. However, in the future, since intelligence agencies are also being privatized, expectations for prevention and response to a pandemic such as Corona 19 can be predicted from companies such as the private military companies described above.

Figure 6. Private military company (PMC).

Now, the period of national security belonging to the government in the past is divided into Private Military Company (PMC) for development, and just as military organizations in the past were specialized according to the characteristics of their work in security, security, intelligence, and firefighting, it is expected that Private Military Company (PMC) will gradually expand and become specialized and individual institutions according to the principle of market capitalism.

Four theories based on market capitalism are presented as the basis for this claim[25][26][27][28].

Table 1. Private military company (PMC)’s expansion theory.

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<tr>
<th>Theory</th>
<th>Description</th>
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<tr>
<td>Privatization theory</td>
<td>It is a theory which claims that the transition from state-led internal supply to private-led external supply takes place, and in this process, competition in the market provides better service.</td>
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<td>Cavitation theory</td>
<td>It is a theory that the state and the private sector complement each other to compensate for the vacuum which was created when both state-led internal supply and private-led external supply failed to reach each other.</td>
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<td>Beneficiary’s payment theory</td>
<td>It is a theory that the beneficiary should bear the benefits of specific corporations and individuals as a state public authority.</td>
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<td>Economic reduction theory</td>
<td>This is a theory which claims that, when the economy is good, businesses and individuals have the opportunity to spend their surplus capital on private services, and private services develop according to this demand. Whereas, when the economy is bad, crime increases due to an increase in the unemployment rate, and private services are expanded by some capitalists.</td>
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Furthermore, if both the state-led supply and the private-led supply are not satisfied, consumers will eventually depend on private services, and it is predicted that the core technologies of the 4th industrial revolution such as AI and Metaverse will be grafted here.

In particular, during the pandemic of COVID-19, everyone agreed that the state-led policy is not perfect, and in the future, not only war but also all threats such as the pandemic of COVID-19, it is gradually transformed into a model of cooperation between the state and the private sector or a private-led model.
It has taught us how important the role of information is in the operation of state affairs, and this formula has been with the beginning of mankind through the World Wars I and II and the Cold War between the US and Soviet Union, and military strategy has been with the beginning of mankind. and intelligence agency came along with the change of security institutions.

8. References

8.1. Journal articles


9. Appendix

9.1. Authors contribution

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<td>- Design ☑</td>
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<td>- Participants in Drafting and Revising Papers ☑</td>
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<td>- Someone who can explain all aspects of the paper ☑</td>
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9.2. Funding agency

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