

PROTECTION OF DATA PRIVACY IN THE DIGITAL ERA

(Comparative Approach Between Indonesian Law and European Union Law)

THESIS



By:

PRADANA SATYA AJI KUSUMA

Student Number: 16410180

INTERNATIONAL PROGRAM

UNDERGRADUATE STUDY

FACULTY OF LAW

UNIVERSITAS ISLAM INDONESIA

YOGYAKARTA

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Presented as the Partial Fulfillment of The Requirements

to Obtain a Bachelor's Degree at The Faculty of Law

Universitas Islam Indonesia

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By:

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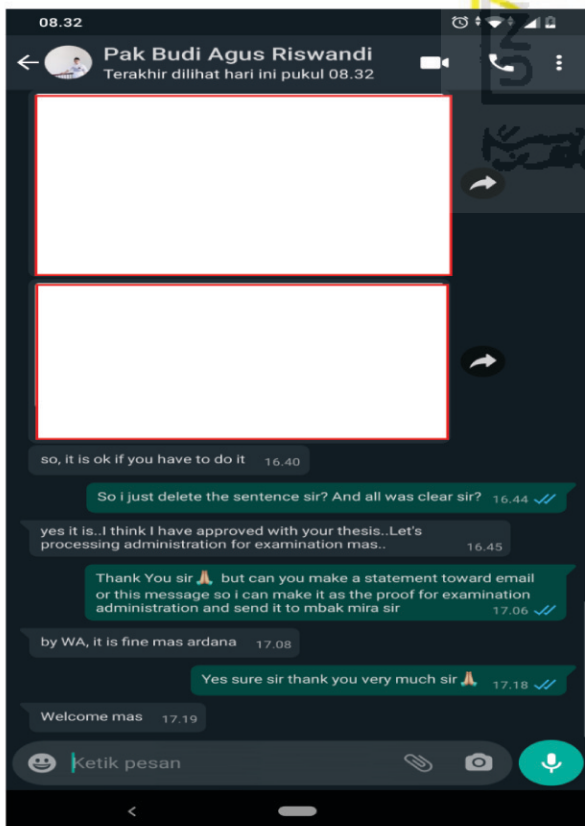


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(Comparative Approach Between Indonesian Law and European Union Law)

Has Been Examined and Approved by Thesis Advisor submitted before the Board
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Date on 7 June 2020



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INTELLIGENCE IN THE DIGITAL ERA**

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Adalah benar-benar Mahasiswa Fakultas Hukum Universitas Islam Indonesia yang telah melakukan penulisan Karya Tulis Ilmiah (Tugas Akhir) berupa Skripsi dengan judul: **PROTECTION OF DATA PRIVACY IN THE DIGITAL ERA** (Comparative Approach Between Indonesian Law and European Union Law).

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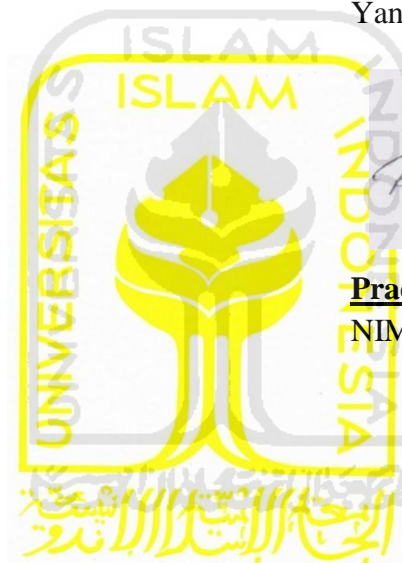
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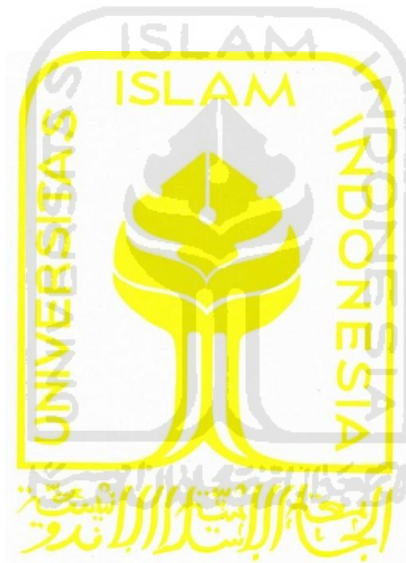
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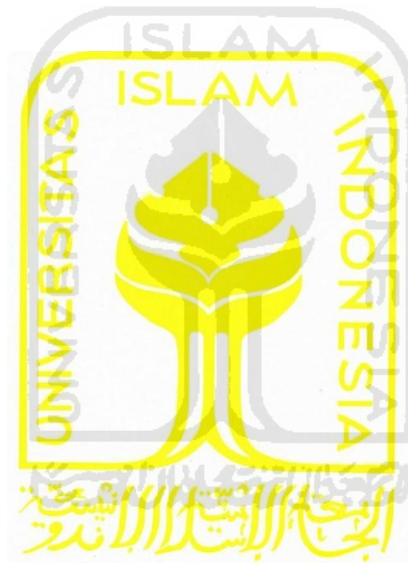
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MOTTO

“Raise the sail with your stronger hand”

- Shoicro Honda -



DEDICATION

This thesis sincerely dedicated to:

Allah Subhanallahu wa ta'ala,

The sprinkling of your love and affection has given me strength, supplied me with knowledge and introduced me to love. With the gift and convenience that You have given, this simple thesis can finally be completed;

My beloved father and mother,

who have provided encouragement and support for my education and life;

My one and only beloved brother,

who always support, cheer, and pray for me;

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who have inspired me to be the best version of myself;

All of my friends,

who always stand by my side when times get hard;

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This thesis was written and complied as a partial fulfillment to attain a bachelor degree in International Program, Faculty of Law, Universitas Islam Indonesia. I realize that this thesis is still far from perfect and there are still many short comings due to all my limitations. Therefore, the suggestions and criticism from all parties are gladly received to make everything better in the future, especially for the educational progress.

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Author,

Pradana Satya Aji Kusuma

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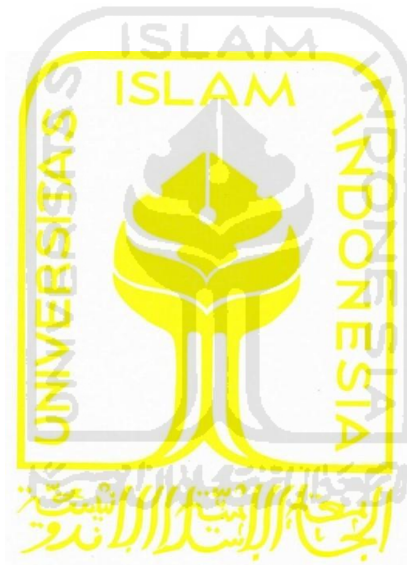
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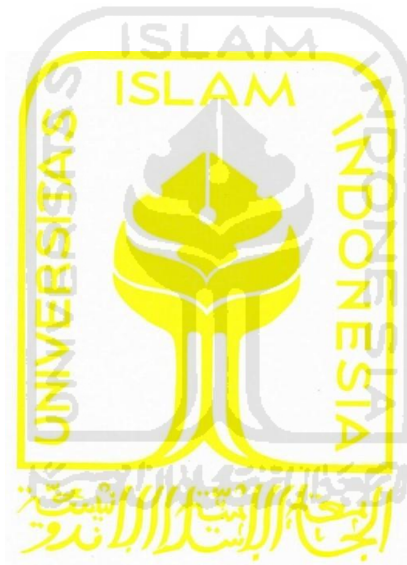
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ABSTRACT

Indonesia has just experienced globalization and entered a new era called the Industrial Revolution 4.0. The entry of the Industrial Revolution 4.0 era has brought us to an era or a phase of time in which all things can be accessed or arranged in only one hand. The era was called the Digital Era. The development of the digital brings the existence of a technological machine that has the ability to think, process data, and be able to do several activities like humans called by Artificial Intelligence. In Digital era it is very important to protect data privacy. This is because everyone has their own privacy and must be responsible and careful to protect the data privacy. This research has 2 problem formulation, which are How is the comparison of legal protection of data privacy in Indonesia and European Union and What is the background of the similarities and differences in the protection of data privacy between Indonesia and the European Union. This research is a Normative Legal Research since it would be mostly done by reviewing prevailing laws and regulations, and also legal theories or doctrines. This research undertaken by 2 methods of approach, which are Statutory Approach and Comparative Approach. Indonesia has yet to have a legislation that was comprehensive such as the European Union adopted by the European Union member states. This is motivated by several things including the countries in the European Union which have long been developing modern technological systems. So, they also had already made rules about protecting data privacy one of them through the 1995 Directive. Indonesia must immediately discuss further and ratify the Data Protection Bill to immediately have a privacy data protection regulation that can fully protect all of its citizens' privacy rights.

Keywords: Digital era, Data Privacy, Data Privacy Protection

CHAPTER I

INTRODUCTION

A. Background of Study

Recently, Indonesia has just experienced globalization and entered a new era called the Industrial Revolution 4.0. As quoted in the book "The Fourth Industrial Revolution" by Klaus Schwab,¹ it is stated that the world has experienced four stages of the revolutionary process, namely: 1) Industrial Revolution 1.0, this revolution occurred in the 18th century through the discovery of steam machines, so that goods can be produced massively on a large scale; 2) Industrial Revolution 2.0 that occurred in the 19th century until the 20th century through the use of electricity that made industrial production costs cheaper; 3) Industrial Revolution 3.0, this revolutionary phase occurred around 1970s through the use of systems computerized; 4) Industrial Revolution 4.0, this industrial revolution occurred around the 2010s and in Indonesia began to enter the 4.0 industrial revolution phase in 2011² through intelligence engineering and the internet of things as the backbone of movement and connectivity between humans and machines.

The entry of the Industrial Revolution 4.0 era has brought us to an era or a phase of time in which all things can be accessed or arranged in only one hand. The era was called the Digital Era. The digital age was originally born

¹ K. Schwab, *The Fourth Industrial Revolution*, E-Book World Economic Forum, Switzerland, 2016, p. 11

² The Statement by Indonesian Industry Minister at the Socialization of Implementation Roadmap for Industry 4.0 in Jakarta, 2018

with the start of the digital emergence by digitizing through the internet, especially through computer information technology media. New media in the digital age has unique characteristics that can be manipulated and they are network or it called by internet.³ In the digital age, we can do anything as we wish, such as: transferring money, making shopping payments, and other things in just seconds only by using devices.

The development of the digital age does not stop at ease of transactions as explained above, but it is the existence of a technological machine that has the ability to think, process data and be able to do several activities like humans.⁴ This machine is Artificial Intelligence. The basic understanding of Artificial Intelligence is the field of study that describes the capability of a machine learning that just like humans doing also thinking and toward the ability of Artificial Intelligence to respond to certain behaviors or as the discipline of the computer system that shows intelligent human behavior.⁵ Besides being created to imitate something, Artificial Intelligence is also a branch of computer science that aims to create something.⁶ Artificial Intelligence is a new developing science and is a technique for making intelligent machines, especially in intelligent computer programs.⁷ Indonesia have some of Start Up

³ Wawan Setiawan, "Era Digital dan Tantangannya", Paper presented at *Seminar Nasional Pendidikan*, Universitas Pendidikan Indonesia, Jakarta, 2017, p. 5

⁴ C. Smith, etc., *History of Artificial Intelligence*, University of Washington, Washington, 2006, p. 4

⁵ Henk Van Zuylen, "Difference Between Artificial Intelligence and Traditional Methods", *Journal TR Circular E-C168: Artificial Intelligence Applications to Critical Transportation Issues*, Delft University of Technology, Delft, 2012, p. 3

⁶ Prakhar Swarup, "Artificial Intelligence", *International Journal of Computing and Corporate Research*, Issue 4 Volume 2, 2012, p. 3

⁷*Ibid*

who running their application using the Artificial Intelligence which are Snapchart, Kata.AI, Bukalapak, Tokopedia, Node Flux, Gojek, Google Maps.

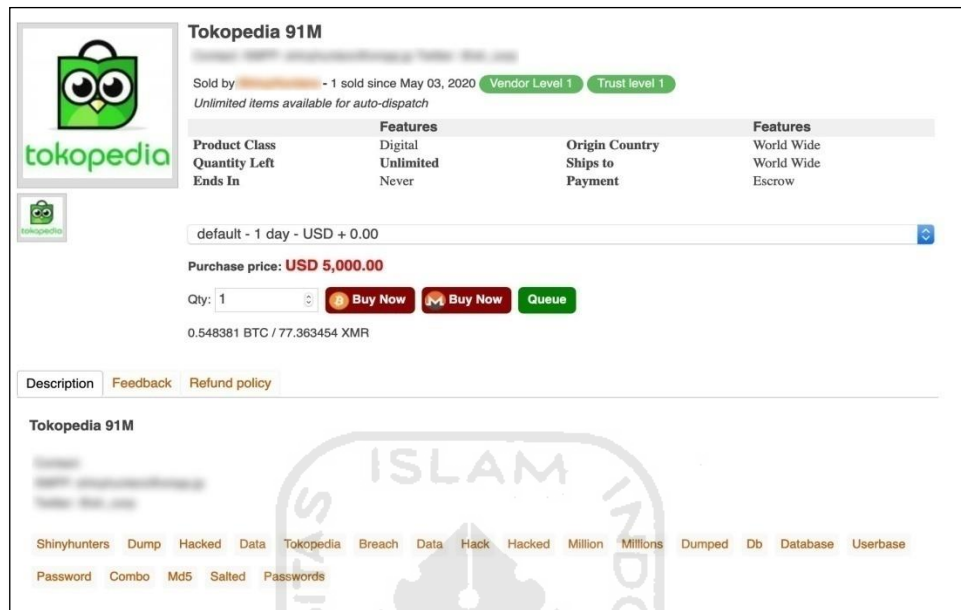
As time goes by, the development of security in a technology-based application must also develop. At present many applications are based on Artificial Intelligence, which is from AI. It obtained the data privacy of someone who has used the application. This is because one of the capabilities of the AI is the ability to process data. So that AI can store, process, and produce data that has been summarized into the system. At this time there are also many cases circulating about the leaking of data privacy from individuals or many people, as happened in the case of tens of millions of airline passenger data belonging to Lion Group leaked on the internet.⁸ The passenger data was reportedly circulating on the data exchange forum for at least the past month. The airline's data is stored on Amazon Web Service's (AWS) server which is open for a month on the internet. The news of data privacy leaked was from the Decacorn Indonesian Startup namely Tokopedia. There was amount 91 million user data privacy that hijacked and sell in ton *dark web*.⁹

⁸ Agustin Setyo, *Puluhan Juta Data Penumpang Lion Air Bocor*, <https://www.liputan6.com/teknoread/4065787/puluhan-juta-data-penumpang-lion-air-bocor-di-internet>, accessed on 9 October 2019

⁹ Adhi Wicaksono, *Penelusuran 91 juta data bocor Tokopedia*, <https://www.cnnindonesia.com/teknologi/20200503120157-185-499513/penelusuran-91-juta-data-bocor-tokopedia-dijual-rp74-juta> accessed on 1 May 2020.

Picture 1

Tokopedia User Data Privacy that Hijacked and Sell in Ton *Dark Web*¹⁰



From this case we can realize that it is very important to protect data privacy that is stored and generated by Artificial Intelligence. This is because everyone has their own privacy. Besides, the party which manages the data must also be responsible and careful to protect the privacy of data from the owners of data privacy. In addition, the Government, in this case the Ministry of Communication and Information, has required mobile phone users or commonly referred to as cellular phones to register prepaid SIM cards, both long-used cards and new cards that are valid for all operators in Indonesia, such as: *Telkomsel, XL, Indosat, and Tri*. This regulation starts from October

¹⁰ *Ibid.*

31, 2017 until February 8, 2018.¹¹ The prepaid card registration process can be done online through the official website of each operator or SMS to 4444. In this case, the users of communication services are asked to register the Master Number Population (NIK) and Family Card Number (KK).

With the issuance of the Minister of Communication and Information Regulation, the government in this case the Ministry of Communication and Information must be able to guarantee that the data of the users of the communication services have been guaranteed by telecommunications operators. This is because data privacy is very important so that needs to be protected.

Regarding the protection of data privacy, Government of the Republic of Indonesia and the European Union Commission regulates the protection of data privacy. In this case, the Government of Indonesia already has a regulation in which the purpose of the regulation is to provide protection and guarantee for the data privacy of its citizens from criminal acts and cybercrime that could endanger Indonesian citizens. The Government of Indonesia has 3 (three) Regulations governing the issue of protecting data privacy for the Indonesian people. The three regulations are Law Number 19 of 2016 on Electronic Information and Transactions,¹² Government Regulation Number

¹¹ Regulation of the Minister of Communication and Information Number 14 of 2017 on Amendment to Regulation of the Minister of Communication and Information Number 12 of 2016 on Telecommunication Services Customer Registration

¹² Law Number 19 of 2016 on Electronic Information and Transactions, <https://jdih.kominfo.go.id>, accessed on 11 October 2019

82 of 2012 on The Implementation of Electronic Systems and Transactions¹³ and Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems,¹⁴ and the newest one is the Bill of Data Privacy Protection of 2019.

Talking about the three regulations above, only Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems which specifically regulates the protection of the data privacy of each individual input into the Artificial Intelligence server. This is because of Law Number 19 of 2016 on Electronic Information and Transactions only regulates piracy in the form of hacking or cracking which is done on the data privacy of someone who aims to be misused in social media. In addition, this Act only addresses internet users, especially social media. Whereas Government Regulation Number 82 of 2012 on The Implementation of Electronic Systems and Transactions, only regulates illegal acts by accessing the electronic system by violating the security system of the electronic system. With regard to Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems, this regulation is a regulation that specifically regulates the privacy protection of a person's data privacy. In this regulation, it specifically regulates the protection starting from the acquisition,

¹³ Government Regulation Number 82 of 2012 on The Implementation of Electronic Systems and Transactions, <https://jdih.kominfo.go.id>, accessed on 11 October 2019

¹⁴ Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems, <https://jdih.kominfo.go.id>, accessed on 11 October 2019

collection, processing, analysis, storage, distribution, appearance, announcement, transmission, distribution and destruction of data privacy.

The Bills of Data Privacy Protection in Indonesia is the newest bills which would like to ensure the data privacy and to make sure that Indonesia has to be responsible toward the global change of data processing system and to ensure the Indonesian citizen data privacy which has been protected by the Government. Some of points from Bills of Data Privacy Protection are regulate about the definition of personal data, types of personal data, deletion of personal data, failure to protect personal data. This is show how its important and the Government know how to ensure the protection of the data privacy of the citizen.

In connection with the European Union Commission, the European Union has a Law dubbed the "Stronger Rule on Data Protection". The law is the 2016/679 General Data Protection Regulation (EU).¹⁵ One other reason for comparative law with European Union Law is because European Law is the pioneer of all countries in the World and has had regulations regarding the protection of data privacy since 1995 called Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with regard to The Processing of Data Privacy and on The Free Movement of Such Data, which was adopted at a time when the internet was in its infancy.

¹⁵ General Data Protection Regulation (EU), European Commission of the European Union, Retrieved from https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules/eu-data-protection-rules_en, accessed on 11 October 2019

The General Data Protection Regulation is a regulation in European law specified on data protection and privacy for all individual citizens of the European Union and the European Economic Area (EEA). The General Data Protection Regulation also addresses the transfer of data privacy outside European Union and European Economic Areas.

In general there are many similarities between the General Data Protection Regulation and Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems like the two have in common, namely: *first*, regulating the protection starting from the acquisition, collection, processing, analysis, storage, distribution, appearance, announcement, delivery, distribution, and destruction of data privacy. *Second*, the electronic system used must be first verified and have internal rules regarding the security system from within the system. *Third*, provide full access to the owner of data privacy. *Fourth*, the obligation to maintain the confidentiality of data.

Besides these four equations, an interesting difference was found which will be used as a comparison for comparative approach material between the Republic of Indonesia and European Union data privacy protection regulations.

First, the General Data Protection Regulation is a regulation that has a strong position on a par with the Act. So, this regulation has a clear position regarding the regulation regarding data protection. While the Indonesian government's property is only by the Minister of Communication and

Information Regulations, which this regulation is not parallel with the Law so it does not have a powerful position as a regulation.

Secondly, even though both regulations only apply administrative sanctions, the GDPR's administrative sanctions more clearly and firmly regulate the amount of fines for each violation committed and give orders to European Union member countries shall lay down the rules on other penalties applicable to infringements of this Regulations in particular for infringements which are not subject to administrative fines. So that each Member State can set other penalty rules. Whereas the Indonesian government regulation only provides administrative sanctions in the form of warnings and terminations without additional sanctions or other sanctions.

Third, The General Data Protection Regulation comprehensively regulates the Transfers of data privacy to third countries or international organizations. In this case, any transfer of data privacy that is being processed or intended to be processed after transfer to a third country or to an international organization will only occur if it is adapted to various conditions in accordance with those stipulated in these regulations. Indonesia itself has not yet regulated the matter. Even though it is very important considering that like the Lion Air case that has been explained about the leaking of passenger data that is transferred and stored to another party or in this case the Amazon Web Service, so that if it is repeated then the Indonesian government already has rules that govern it so that it can adjudicate the perpetrators.

Besides the similarity and differences who already explained above, there are some reason that why in this thesis used to make comparative approach within European Union regulation rather than OECD 1980. *First*, The OECD was made in 1980 and the small update was in 2013 and the technology development was still on going until the future. So, the OECD can't fulfill the full protection toward the data privacy. *Second*, the European Union has the newest and greatest data privacy protection named GDPR (General Data Protection Rules) which regulated data privacy more advance than the OECD. *Third*, GDPR puts more emphasis on the controllers' responsibility. For example, they require controllers to adopt policies and implement appropriate measures to ensure and be able to demonstrate that the processing of personal data is performed in compliance with this Regulation, requiring controllers to perform data protection impact assessments for risky processing operations, introduces a mandatory data security breach notification to both the supervisory authorities and the individuals concerned.

From some of the argument above, it can be found that there are comparisons of similarities and differences between data privacy protection from Indonesia and the European Union. Therefore, the authors intend to conduct a comparative study between the protection of data privacy from 2 regulations namely Indonesia and the European Union.

B. Problem Formulation

Based on the background description above, the authors formulate the main issues that will be examined in more detail in research for this thesis are as follows:

1. How is the comparison of legal protection of data privacy in Indonesia and European Union?
2. What is the background of the similarities and differences in the protection of data privacy between Indonesia and the European Union?

C. Research Purposes

1. Determine the comparison of legal protection of data privacy in Indonesia and European Union;
2. Determine the background of the similarities and differences in the protection of data privacy between Indonesia and the European Union.

D. Research Originality

The purpose of the originality of the research is to mention and explain the differences and similarities in the field of study being studied between researchers with writings that have been made by previous researchers. This is intended to avoid repetition of studies/copying of the same things that have been discussed by previous researchers. With the originality of the research, it will be known which parts are distinguishing and will also find the location of the similarities between the researcher's research with previous studies. In

terms of comparing the originality of research, it will be easily understood by the reader if the researcher presents it in the form of a comparison table by presenting it in the form of a description that is descriptive. Therefore, researchers describe it in tabular form as below:

Table 1
Research Originality

No	Research Title	Research Focus	Differences
1	Prof. Dr. Lilian Mitrou, Data Protection, Artificial Intelligence and Cognitive Services is The General Data Protection Regulation (GDPR) “Artificial Intelligence-Proof”?, 2019. The research which is conducted by Prof. Dr. Lilian Mitrou concluded that GDPR, due to the technology-independent regulatory approach will apply to AI when personal data is processed. The provisions of GDPR with regard to the rights of the data subjects, the obligations deriving from accountability or the obligations of the processors will contour the way AI and machine learning will be developed and applied. Moreover, the GDPR comprises, in writer opinion, the elements to face the technological transformations. The first tool consists of the Data Protection Impact	The previous research focus is to found does GDPR deal sufficiently with AI and Data Protection friendly with Artificial Intelligence by design also the Lawfulness and Fairness of data processing toward Artificial Intelligence.	My research talking how was the Data Privacy Protection toward the Data Privacy that resulted by the Artificial Intelligence then looking for the comparative approach between the European Law and Indonesian Law toward the protection of Data Privacy that resulted by Artificial Intelligence in the both laws.

	Assessments that have to be carried out before the deployment of high-risk technologies. A second tool, strictly interrelated to DPIA is the duty to protect personal data by design that the GDPR compels to data controllers. ¹⁶		
2	Fred H. Cate & Rachel Dockery, <i>Artificial Intelligence and Data Protection: Observations on a Growing Conflict</i> , 2019. The research which is conducted by Fred H. Cate & Rachel Dockery concluded that The proliferation of AI is already yielding significant benefits, but it also raises important issues. Efforts to address those issues within existing data protection frameworks increasingly demonstrate the limits of those frameworks and their inadequacy both for protecting privacy and for facilitating innovation in an increasingly data-dependent economy. As new AI applications are developed and deployed, we have an opportunity and an increasingly unavoidable need to examine the effectiveness of current data protection laws and to revise them in light of 21st-century realities. The Laws should	The previous research was focused on the development of technological innovations raise important issues, including questions between AI and data protection laws nowadays. As a result, both have an opportunity and an obligation to examine the effectiveness of current data protection laws in light of 21st-century technological realities. Subsequently, to see the challenges presented by AI as another wake-up call that the current approach to data protection is increasingly outdated and ineffective.	My research talking how was the Data Privacy Protection toward the Data Privacy that resulted by the Artificial Intelligence then looking for the comparative approach between the European Law and Indonesian Law toward the protection of Data Privacy that resulted by Artificial Intelligence in the both laws.

¹⁶ Lilian Mitrou, "Data Protection, Artificial Intelligence and Cognitive Services is The General Data Protection Regulation (GDPR) "Artificial Intelligence-Proof" ?", *International Journal*, University of the Aegean, Metilene, 2019.

	to be more effective with the development of the AI itself. One of the way is to examine the effectiveness of current data protection laws and to revise them following the development of the AI itself. ¹⁷		
3	Timan, T. & Z. Á. Mann, <i>Data Protection in The Era of Artificial Intelligence, Trends, Existing Solutions, and Recommendations for Privacy-preserving Technologies</i> , 2019. ¹⁸ This research was talking about one of the challenges of big data analytics is to maximize utility whilst protecting human rights and preserving meaningful human control. One of the main questions in this regard for policy and lawmakers is to what extent they should allow for automation of (legal) protection in an increasingly digital society? This paper contributes to this debate by looking into different technical solutions developed by the projects of the Big Data Value Public-Private Partnership (BDV cPPP) that aim to protect the privacy and confidentiality whilst	The previous research is focused on what extent regarding policy and lawmakers should allow for automation of (legal) protection in an increasingly digital society, different technical solutions developed by the projects of the Big Data Value Public-Private Partnership (BDV cPPP) that aim to protect the privacy and confidentiality whilst allowing for big data analytics, the development of tools and technologies that facilitate secure and trustworthy data analytics and demonstrate the role of Privacy-Preserving Technologies.	My research talking how was the Data Privacy Protection toward the Data Privacy that resulted by the Artificial Intelligence then looking for the comparative approach between the European Law and Indonesian Law toward the protection of Data Privacy that resulted by Artificial Intelligence in the both laws.

¹⁷ Fred H. Cate and Rachel Dockery, "Artificial Intelligence and Data Protection: Observations on a Growing Conflict", *Cornell Journal of Law and Policy*, Indiana University Ostrom Workshop, Bloomington, 2019

¹⁸ T. Timan and Z. Á. Mann (eds), *Data Protection in The Era of Artificial Intelligence. Trends, Existing Solutions, and Recommendations for Privacy-preserving Technologies*, Big Data Value Association, Berlin, 2019

	<p>allowing for big data analytics. In this paper, privacy challenges are addressed that stem particularly from working with big data. Several classification schemes of such challenges are discussed. The paper continues by classifying technological solutions as proposed by current state-of-the-art research projects. This paper, in particular, demonstrates the role of Privacy-Preserving Technologies as an especially important case of data technologies towards data-driven AI Privacy-Preserving Technologies.</p>		
4	<p>Artificial Intelligence and Privacy Report, The Norwegian Data Protection Authority Unleashed, 2018.¹⁹Most applications of artificial intelligence (AI) require huge volumes of data in order to learn and make intelligent decisions. Artificial intelligence is high on the agenda in most sectors due to its potential for radically improved services, commercial breakthroughs, and financial gains. The Norwegian Data Protection Authority (DPA) believes it to be imperative that we further our knowledge</p>	<p>The previous research focused on the elaboration of legal opinions and the technologies, taking a closer look at four relevant AI challenges associated with the data protection principles embodied in the GDPR, considers the role of the DPA as the supervisory body for AI applications and providing a number of examples of methods and tools and recommendations for safeguarding privacy in the development and</p>	<p>My research talking how was the Data Privacy Protection toward the Data Privacy that resulted by the Artificial Intelligence then looking for the comparative approach between the European Law and Indonesian Law toward the protection of Data Privacy that resulted by Artificial Intelligence in the both laws.</p>

¹⁹ Author, "Artificial Intelligence and Privacy Report", The Norwegian Data Protection Authority, Norwegian, <https://www.datatilsynet.no/globalassets/global/english/ai-and-privacy.pdf>, accessed on 24 March 2019.

	<p>about the privacy implications of artificial intelligence and discuss them, not only in order to safeguard the right to privacy of the individual, but also to meet the requirements of society at large. If people cannot trust that information about them is being handled properly, it may limit their willingness to share information for example with their doctor, or on social media. In this report, the author will provide greater technical detail in describing artificial intelligence (AI), while also taking a closer look at four relevant AI challenges associated with the data protection principles embodied in the GDPR which are Fairness and Discrimination, Purpose Limitation, Data Minimization, Transparency and The Right to Information The above list is not exhaustive but represents a selection of data protection concerns that in our opinion are most relevance for the use of AI today. Subsequently, the report considers the role of the DPA as the supervisory body for AI applications.</p>	<p>use of AI.</p>	
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5	<p>Artificial Intelligence and Privacy Issues Paper, Office of The Victorian Information Commissioner, 2018.²⁰Artificial Intelligence (AI) at its most simple, is a sub-field of computer science with the goal of creating programs that can perform tasks generally performed by humans. These tasks can be considered intelligent, and include visual and audio perception, learning and adapting, reasoning, pattern recognition, and decision-making. This issues paper is an introduction to a wider conversation regarding information privacy and AI. It is written for a non-technical audience and does not endeavor to solve questions posed, nor provide legal guidance. It should be noted that there are many other ethical, technical and legal issues associated with AI that are beyond the scope of this document. The final page of the paper contains a list of suggested further readings, some of which delve into these other important issues.</p>	<p>The previous research was focused on the introduction to a wider conversation regarding information privacy and AI, provide a high-level understanding of AI and its uses in the public sector, highlight some of the challenges and opportunities that AI presents in relation to information privacy.</p>	<p>My research talking how was the Data Privacy Protection toward the Data Privacy that resulted by the Artificial Intelligence then looking for the comparative approach between the European Law and Indonesian Law toward the protection of Data Privacy that resulted by Artificial Intelligence in the both laws.</p>
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²⁰ Author, "Artificial Intelligence and Privacy Issues Paper," <https://ovic.vic.gov.au/wp-content/uploads/2018/08/AI-Issues-Paper-V1.1.pdf>, accessed on 24 March 2019

E. Theoretical Frameworks

1. Data Theoretical

Data is defined as a representation of the real world to represent an object such as humans, animals, events, concepts, conditions, and so on which are recorded in the form of numbers, letters, symbols, text, images, sounds or other combinations. So, it can be said that data is a reality that describes an event and real unity. Data is material or raw materials that do not have meaning or have no direct effect on users, so they need to be processed to produce something more meaningful.²¹

Data can be described as things, events, or reality to be used as a basis for the preparation of information, making, conclusions, or sources of information. Data can also be said as a collection of facts which are then collected into a unity so that they can be understood and expressed clearly by those who read or study them. Data can also be described as the basis of objects, events, activities, and transactions that are recorded or grouped and stored but have not been organized in an organized manner to convey a certain meaning.²² Data can be said as the result of a measurement or recording of facts about things, circumstances, and events.²³ Data is a record of several facts. The facts collected are then processed so that it becomes information that can be learned and seen. Data does not only

²¹ Agus Mulyanto, *Information Systems Concepts and Applications*, Student Library, Yogyakarta, 2009, p. 15

²² Turban, Efraim & Linda Volonino, *Information Technology for Management*, Seventh Edition, John Willey & Sons, Hoboken, 2010, e-book, p. 41

²³ Bambang Hartono, *Sistem Informasi Manajemen Berbasis Komputer*, Rineka Cipta, Jakarta, 2013, p.15

have one type but has several classifications based on separate classifications.

Data can be classified into several forms based on the nature, source and type. Here are the data classifications:²⁴

a. Classification of data according to the nature of the data, namely:

1) Quantitative Data

Quantitative data is data about classification which is usually related to addition.

2) Qualitative Data

Qualitative data is data about the classification which is collected using a particular quality method or trait.

b. Classification of data according to data sources, namely:

1) Internal Data

Internal data is original data, what is meant as original data is data as a result of observations made by the researchers themselves, not data from other people's research.

2) External data

External data is data from observations made by other people.

²⁴ T. Sutabri, *Konsep Sistem Informasi*, Andi, Yogyakarta, 2012, p. 3

c. Classification of data by type of data, namely:

1) Data Count (Enumeration or Counting Data)

Calculated data is the result of a certain calculation or amount.

Included in the calculated data is the percentage of a certain amount.

2) Measurement Data

Measuring data is data that shows a measure of the value of something. The number indicated by the barometer or thermometer is the result of the measurement process.

The next theory regarding data is about data processing. Data is a material that can be said as raw material which is then processed to become information. In other words, it can be said that the data that has been obtained must be adjusted to the original purpose of the data collection. So, the data processing must be with a specific purpose.²⁵

2. Privacy Theoretical

Privacy is something that is hidden or not disclosed about information about ourselves, and only a few people we will open our privacy and of course only to someone we trust. Usually, when something is said to be privacy, then it can be said to be privacy from someone.

²⁵ *Ibid*, p. 4

Domain privacy as a form of protection with security, which can include the concept of appropriate use, as well as information protection. Privacy can also take the form of bodily integrity. The right not to be subjected to theft of privacy without permission by the local government, company, or individual is part of the clause contained in laws governing privacy in various countries.

In the business world, a person can file confidentiality on the data themselves or someone concerned. In the business world, privacy is very closely related to data where these two things cannot be separated. Personal information that is voluntarily shared can be misused and can lead to identity theft.

The concept of individual privacy is a modern construction used by most people today to protect their data privacy in a way they do not spread their own privacy and the main thing is the wider community, such as closing the door to someone's home. Privacy also has several aspects that explain how was important it is, which are:

a. Right to Limited Access

It was the rights of a person who would like to participate in a social activity or anything else but without letting others know about their privacy.²⁶

²⁶ Daniel J. Solove, *Understanding Privacy*, Harvard University Press, Cambridge, 2008, p. 19

b. Secrecy

Privacy is the right of someone to be able to hide or keep confidential information about themselves that is confidential and very intimate which may be used by others that can cause harm to the owner of the privacy.²⁷

c. Intimacy

The theory of personality explains that privacy as an important part of an individual, in this case, privacy plays an important role for humans to strengthen a relationship with other humans. This is because it is part of sovereignty as humans to share their personal information only to those closest to and not to be shared with the general public.²⁸

d. Personal Privacy

Physical privacy can be said as a limitation on someone to be able to invade someone's privacy. In this case, it is stated in the U.S. Fourth constitutional law Amendment, which guarantees, "*the right of people to feel secure in people, homes, documents, and their effects, on unreasonable searches and confiscations*".²⁹ Physical privacy can be in the form of cultural sensitivity, personal dignity. There may also be

²⁷ *Ibid*, p. 21

²⁸ *Ibid*, p. 34

²⁹ Fourth Amendment Constitution of the United States of America, https://www.law.cornell.edu/wex/fourth_amendment, accessed on 29 May 2020

safety concerns if for example someone is worried about being a victim of a crime or stalker.³⁰

3. Data Privacy Protection Theoretical

An international perspective on data privacy protection documents aimed at outlining an appropriate and legal processing system. The OECD Guidelines on the Protection of Privacy and Transborder Personal Data Flow, issued in 1980, can initially be mentioned among these international instruments. Even if the OECD does not have binding power, those are the basic principles that are considered as guideline rules for countries where the field of data protection is not specifically regulated.

New technologies and modern communication networks cause the need to update their rules to increase the level of protection of data privacy. In order to provide protection for data, the efforts of the United Nations (UN) must be maximized. In 1990, the United Nations issued guidelines for Computerized Personal Data File Regulations adopted by the General Assembly³¹ covering nine basic principles, all of which are advice. Those all principles are principle of lawfulness and fairness, principle of interested-person access, the principle of the purpose-specification, principle of accuracy, the principle of non-discrimination,

³⁰ H. Jeff Smith, *Managing Privacy: Information Technology and Corporate America*, University of North Carolina Press Books, North Carolina, 1994, p. 57

³¹ UN General Assembly, *Guidelines for the Regulation of Computerized Personal Data Files*, UN General Assembly, New York, 1990

the power to make exceptions, the principle of security, supervision, and sanctions, transborder data flows.

Turkey was quite similar to Indonesia's regulation. Article 20/3 of the Turkish Constitution is the fundamental base of data protection in our law system. According to this Article, everyone has a right to protection of his/her own personal data. But the turkey was quite similar to Indonesia which the Turkish Civil Code, there is no particular provision regarding the data protection. Nevertheless, any person whose personally data is processed in an unlawful manner without any permission or agreement also illegally can invoke the safeguards introduced in Articles 23-25 of the Turkish Civil Code, it was because unlawful interference with data privacy might be considered as a breach of his/her personal right.³²

Then, The Law on the Protection of Personal Data Number 6698 has then been adopted on 24 March 2016 by the Ministry of Justice was submitted to the Turkish Grand National Assembly by the Prime Ministry. Turkish legislator was adopted the principles and rules set out in the CoE Convention Number 108 and specifically the EU General Directive 1995. The fundamental purpose of the Law on the Protection of Personal Data Number 6698 is to protect the individual's fundamental rights and freedoms with regard to data processing and to administer all rules and procedures to be implemented during processing activities.³³

³² İlke Gürsel, "Protection of Personal Data in International Law and The General Aspects of The Turkish Data Protection Law", Paper Presented at the 1st International Scientific Researches Humanity and Social Sciences Conference, Madrid, 2016, p. 42

³³ *Ibid*

The concept of personal protection can be said as recognition of the right or right of privacy which this right must be protected by law as stated in Article 17 of the Human Rights Committee General Number 16 on the Rights to Respect of Privacy, Family, Home, and Correspondence, and Protection of Honor and Reputation. Privacy, as part of human rights, identifies the protection of data privacy as an important right.³⁴

Data protection arrangements are also a key to various business problems and also economic problems in the field of information intensive business in the modern era. Today's modern business practices often involve data manipulation such as customer data segmentation, including data mining and data picking, creating customer profiles, consolidating global data processing, and other business processes.³⁵

4. Data Privacy Protection in Indonesia

Since the amendment to the 1945 Constitution, the right to privacy including the protection of personal data privacy is recognized as a constitutional right as a citizen. This is in line with the inclusion of a special chapter on human rights into the amendment constitution listed in Article 28 A-J. Provisions regarding guaranteed protection of data privacy can be found in Article 28G paragraph (1) of the 1945 Constitution which states, "Every person has the right to protection for personal, family,

³⁴ Sinta Dewi, "Privasi atas Data Pribadi: Perlindungan Hukum dan Bentuk Pengaturan di Indonesia", *Jurnal De Jure*, Vol. 15 No. 2, 2015

³⁵ Sinta Dewi, "Konsep Perlindungan Hukum atas Privasi dan Data Pribadi Dikaitkan dengan Penggunaan *Cloud Computing* di Indonesia", *Jurnal Yustisia*, Vol. 5 No. 1, 2016

honor, dignity, and property under his authority, and is entitled to a sense of safe and protection from the threat of fear to do or not do something that is a human right". In addition to constitutional protection, the involvement of Indonesia as a state party to the International Covenant on Civil and Political Rights (ICCPR), which was ratified through Law Number 12 of 2005 on The Ratification of the ICCPR, has also emphasized that the Indonesian government's obligation to protect the privacy and personal data of its citizens.³⁶

Initially, the Indonesian government only regulates the protection of the right to privacy only related to the confidentiality of information and communication on one's person, which is realized through the prohibition of wiretapping, in Law Number 36 of 1999 concerning Telecommunications. Then, the provisions governing the protection of personal data and privacy in the telecommunications and informatics sector or more broadly in the operation of the new electronic system came to the fore in line with the Law Number 11 of 2008 concerning Electronic Information and Transactions.³⁷

Furthermore, Indonesia also adopted the concept of right to be forgotten, which is a concept that states that electronic system operators must delete electronic information and or electronic documents that are not relevant to a person. This proposal is then accommodated in Article 26

³⁶ Wahyudi Djafar, etc., *Perlindungan Data Pribadi di Indonesia (Usulan Pelembagaan Kebijakan dari Perspektif Hak Asasi Manusia)*, Lembaga Studi dan Advokasi Masyarakat (ELSAM), Jakarta, 2016, p. 6

³⁷ *Ibid*

paragraph (3) of Law Number 19 of 2016 concerning Amendment to Law Number 11 of 2008 concerning Information and Electronic Transactions.

Until finally, the protection of data privacy related to the implementation of electronic systems, including communication and informatics, was then formulated in Government Regulation Number 82 of 2012 and Regulation of the Minister of Communication and Information Number 20 of 2016 concerning Data Privacy Protection in Electronic Systems.³⁸

5. Data Privacy Protection in European Union

European countries are dominated by developed countries that have long been developing technology in various fields such as aviation technology, weapons, and information technology. The law regarding data privacy protection also goes hand in hand with technological advances, especially in the field of communication and information technology. European Council realizes that a person's data is very basic and important for human rights. This shows that after the concept of a 'right to privacy' emerged in international law as outlined in Article 12 of the Universal Declaration of Human Rights.³⁹

European Union is one of the first who is regulating about data protection. The most significant from European Union data privacy law developments that have emerged since the European Union adopted the

³⁸ *Ibid*

³⁹ Article 12 of The Universal Declaration of Human Rights

Data Protection Directive⁴⁰ in 1995 and occurred during the past year. European Union finally adopted the General Data Protection Regulation on April 27, 2016, after the European Commission proposed for 4 years. The General Data Protection Regulation repeals the current Data Protection Directive who has made in 1995.⁴¹

European Union data protection law protects individuals (natural persons, as opposed to corporate entities or legal persons), which it refers to as “data subjects” with respect to their data privacy processing. The GDPR defines both “processing” and “data privacy” broadly and in adherence to the Data Protection Directive, even though it reorganizes and updates the Data Protection Directive’s definitions. In this regulation, the relevant personal data are “any information relating to an identified or identifiable natural person as a data subject”, and may include location data, online identifiers, and other forms of information that may be used to identify a data subject directly or indirectly, in addition to classic identifying data such as names and identification numbers.⁴²

⁴⁰ European Commission, “Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on The Protection of Individuals with Regard to The Processing of Data and on The Free Movement of Such Data”, *Official Journal of the European Communities*, L 281 of 23 November 1995

⁴¹ W. Gregory Voss, “European Union Data Privacy Law Reform: General Data Protection Regulation, Privacy Shield, and the Right to Delisting.”, *The Business Lawyer Journal*, Vol. 72, Toulouse University, France, 2017, p. 222

⁴²*Ibid*

F. Research methods

1. Research Type

This research is a Normative Legal Research since it would be mostly done by reviewing prevailing laws and regulations, and also legal theories or doctrines.

2. Research Object

The focus of this research would be the analysis on the differences and similarities between the Protection of Data Privacy Generated by Artificial Intelligence toward the European Union Law and Indonesia Law.

3. Source of Data

The source of data would be primary legal materials in the form of Indonesian and European Union Laws and Regulations which from General Data Protection and Regulation of the Minister of Communication and Information Number 20 of 2016 on Personal-Data Protection Within Electronic Systems, secondary legal materials in the form of text books, scientific journals, and internet news.

4. Method of Collecting Data

This research is based on Normative Legal Research, which the data will be collected by using the secondary data collection techniques through

documentation review and literature review which have relevancies with the topics that will be discussed, which is the Protection of Data Privacy Generated by Artificial Intelligence toward the European Union Law and Indonesia Law.

5. Research Approach

This research will be undertaken by 2 methods of approach, which are Statutory Approach and Comparative Approach, since the object of this research will be the laws and regulations regarding the protection of data privacy and also to determine whether there are similarities and differences with such concept in Indonesia data privacy protection and European Union data privacy protection.

6. Data Analysis

The first method is Descriptive Method. In this method, the data will first be processed by listing about all of the elements which are consisted in Indonesian data privacy protection law and European Union data privacy protection.

The second is Evaluative Method. After the elements are all have been listed, then we will evaluate about the similarities and differences regarding the concept of data privacy protection toward the Indonesian Law and European Union Law.

CHAPTER II
GENERAL OVERVIEW OF DATA, PRIVACY, AND DATA PRIVACY
PROTECTION IN INDONESIA AND EUROPEAN UNION

A. The Concept of Data

Data is a term that is compounded from the word datum which has meaning as a fact or part of a word that has meaning, which is related to reality, symbols, pictures, words and numbers, letters or symbols that indicate a particular idea, object, condition or situation.⁴³ Simply stated, the data can be anything and can be found anywhere as long as it can be calculated and seen clearly.

Data can be classified into several forms, namely:⁴⁴

1. Text

Text is a series of letters, numbers, and symbols whose combination does not depend on each item individually, for example, articles, newspapers, magazines, and others.

2. Formatted Data

Formatted data is data in a certain format, for example, data that states the date or time, and the value of the currency.

⁴³ Dani Vardiansyah, *Filsafat Ilmu Komunikasi: Suatu Pengantar*, Indeks, Jakarta, 2008, p.3

⁴⁴ Yakub, *Introduction to Information Systems*, Graha Sciences, Yogyakarta, 2012, p. 5

3. Image

Image is data in the form of images, images can be in the form of graphics, photos, roentgen results, and signatures.

4. Audio

Audio is data in the form of sound for example, musical instruments, people's voices, animal sounds, heartbeats, and others.

5. The video

Video is data in the form of moving images and is equipped with sound, for example, an event and activity in the form of film.

Data can be classified into several forms based on the nature, source and type. Here are the data classifications:⁴⁵

1. Classification of Data according to The Nature of The Data

a. Quantitative Data

Quantitative data is data about classification which is usually related to addition.

b. Qualitative Data

Qualitative data is data about the classification which is collected using a particular quality method or trait.

⁴⁵ T. Sutabri, *Konsep...*, *Loc.Cit.*

2. Classification of Data according to Data Sources

a. Internal Data

Internal data is original data, what is meant as original data is data as a result of observations made by the researchers themselves, not data from other people's research.

b. External Data

External data is data from observations made by other people.

c. Personal Data

Personal data sources are not only in the form of facts, but can also include concepts, thoughts, and opinions and personal data that are usually privacy and confidential.

3. Classification of Data according to Type of Data

a. Data Count (Enumeration or Counting Data)

Calculated data is the result of a certain calculation or amount. Included in the calculated data is the percentage of a certain amount.

b. Measurement Data

Measuring data is data that shows a measure of the value of something. The number indicated by the barometer or thermometer is the result of the measurement process.

The usefulness of the data is as an objective and not subjective basis,⁴⁶ which is useful in the process of compiling the policies and decisions of an algorithm. In relation, with the development of information technology, by processing data using computers, the understanding of data can be limited to facts that can be recorded and documented. In each data processing, data is a source of information that can be generated and accounted for.

Data is a material that can be said as raw material that must be processed through several stages before it becomes information. Data that can be processed may not be stored data, but must be in accordance with the provisions of good and bad and the suitability of the objectives of the data processing. Data processing consists of data storage and data handling activities. Here are some ways of data processing:

1. Data Storage

Data storage includes the work of collecting (filing), searching, and maintenance. Data is stored in a place that is commonly referred to as the word "file". Files can be in various forms such as folders, diskettes, hard disks, and so on. So, the file can be interpreted as an arrangement of data formed from a number (records) that relate to one another about a field in a business unit. In data searching, there are 2 methods in searching of the data, namely:⁴⁷

⁴⁶ Syafrudin Chamidi, "Kaitan antara Data dan Informasi Pendidikan dengan Perencanaan Pendidikan," *Jurnal Pendidikan dan Kebudayaan*, Vol. 48 No. 10, 2004, p.314

⁴⁷ T. Sutabri, *Konsep...Op.Cit.*, p. 6

a. Master File

The master file contains permanent data that is only processed once and then used for further data processing.

b. Transaction File

Transaction files contain temporary data for a period or for a particular field of activity that is linked to an area of activity to be used.

2. File Maintenance

Maintenance file is usually done for data update processing. What is called data updating is the process of adding new records to a data, making improvements, and also deleting and reducing data.

3. Data Handling

Data handling is a data processing activity that includes checking, comparison, selection, summarization, and usage. Data checking is done by checking the data that appears on various related lists that aim to find out various sources and to find out the differences or discrepancies with the purpose of data collection. This data check is performed by the file maintenance process. In addition, there is a process called data manipulation which is an activity to produce information on the results of processing a data set.

B. Privacy Concept

Privacy is an elusive concept, it is not based because it is difficult to understand, but especially because privacy is dynamic. Privacy is always changing every time along with the time and flow of data processing that is increasingly fast dynamic.⁴⁸ If we talk about privacy, then social media and also magazines or newspapers can be a threat. This is caused by the large number of photographs and some statements that we have revealed to be redistributed by others without our permission and knowledge. So, at this time privacy is important and becomes a very identical thing with personal information from individuals and if other people find out personal information other people eat it will be dangerous.

As we know that modern society as at present they prefer privacy to their personal lives and data themselves. However, on the other hand we also often share our personal information to get certain services such as the implementation of Electronic Commerce in the field of business or commerce, then there is also Electronic Education as we know many digital platforms that provide education service providers that are currently developing. Then in the health sector there is an Electronic Health service that is very vulnerable, we share our personal information, besides that there is also an Electronic Government which is currently being intensively implemented by the Government to facilitate services in society.⁴⁹ So it can be concluded that in an

⁴⁸ J. H. Moor, "Using Genetic Information while Protecting The Privacy of The Soul", *Ethics and Information Technology*, Vol. 1 No. 4, 1999, 257–263

⁴⁹ M. Pelteret and J. Ophoff, "A Review of Information Privacy and Its Importance to Consumers and Organizations. Informing Science: *The International Journal of an Emerging*

information society, the self is expressed, defined, and affected through and by information and information technology. The boundaries between private and public become blurred. Privacy has, therefore, become more a class of multifaceted interests than a single, unambiguous concept.⁵⁰

Technology/tools that are able to store and have collected our data privacy are certainly easy to share with others. Then the longer it seems to be a time boomerang that will become a danger. This is because if once our data is scattered, it is very difficult for us to be able to control the spread of that data and also it is not possible to maintain control of that information. There are several technological influences on personal data privacy namely: 1) The amount of data that can be collected; 2) The speed at which it can be exchanged; 3) The length of time that the data can be retained; 4) The kind of information that can be acquired.⁵¹

The concept of privacy is about confidentiality, solitude, security, confidentiality, anonymity, freedom, and autonomy. It can be concluded that the concept of privacy itself is to secure confidential data from a person or group so that it is not misused against criminal acts or other crimes. Privacy can also be regarded as the rights of others and also as an interest. In addition, the concept of privacy is an idea to maintain one's personal integrity and

Transdiscipline, Retrieved from <http://www.informingscience.org/Publications/3573>, accessed on 25 February 2020

⁵⁰ A. Acquisti, *Privacy in Electronic Commerce and The Economics of Immediate Gratification*, ACM, New York, 2004, p. 22

⁵¹H. T. Tavani, *Informational Privacy: Concepts, Theories, and Controversies*, In K. E. Himma & H. T. Tavani (Eds.), *The Handbook of Information and Computer Ethics*, Hoboken, John Wiley & Sons, 2008, p. 131

dignity.⁵² Privacy rights are the abilities of individuals where they can determine for themselves who they choose to be able to share personal information and also who can use the data privacy.⁵³

Collection, distribution, and distribution of data privacy without the permission or willingness of the data owner is an act of violation of one's privacy⁵⁴ because only the individual concerned has the right to choose whether or not to provide or share this information with others.⁵⁵ In other cases, data privacy constitutes an economic assets⁵⁶ which have very high economic value commodities.⁵⁷

C. Sensitive Data

Based on the European Union Data Protection Directive, the level of danger/urgency that can be harmed to the person in the event of data processing without the approval of the person concerned is divided into 2 groups, namely "Sensitive Data" and "Non-Sensitive Data". Sensitive data is data that has the highest level of danger in the case of illegal data processing. Usually, the Sensitive Data has more stringent legal protection when

⁵² Wahyudi Djafar and Asep Komarudin, *Perlindungan Hak atas Privasi di Internet-Beberapa Penjelasan Kunci*, ELSAM, Jakarta, 2014, p. 2

⁵³ Article 17 of Human Rights Committee General Comment Number 16 of 1988 on The Right to Respect of Privacy, Family, Home and Correspondence, and Protection of Honour and Reputation as quoted in Privacy International Report, 2013, p. 1-2

⁵⁴ Departemen Pendidikan Nasional, *Kamus Besar Bahasa Indonesia*, Third Edition, Departemen Pendidikan Nasional and PT. Balai Pustaka, Jakarta, 2001

⁵⁵ Human Rights Committee General Comment Number 16 of 1988 on The Right to Respect of Privacy, Family, Home and Correspondence, and Protection of Honor and Reputation

⁵⁶ M. Arsyad Sanusi, *Teknologi Informasi dan Hukum E-commerce*, PT. Dian Ariesta, Jakarta, 2004, p. 9

⁵⁷ Edmon Makarim, *Kompilasi Hukum Telematika*, PT. Raja Grafindo Perkasa, Jakarta, 2003, p. 3

compared to the Non-Sensitive Data. Usually the permit application for processing sensitive data requires a written statement. In the Data Protection Directive, processing sensitive data is prohibited unless explicit and official approval has been obtained from the owner of the data.

Sensitive data has some information that is categorized into sensitive data including information concerning ethnicity, political opinions, religion, and beliefs, membership of trade organizations including data relating to health and sex life of a person as well as data on finances and location of the data owner.⁵⁸

The more advanced modern technology, the more things that can be included in the category of sensitive data. This relates to the security of the data owner. Considering that data is an economic entity that has high economic value, so it is very important to protect one's data privacy and it is also natural to require written approval to guarantee the protection of the data.

D. Concept of Data Privacy Protection

The concept of personal protection can be said as recognition of the right or right of privacy which this right must be protected by law as stated in Article 17 of the Human Rights Committee General Number 16 on the Rights to Respect of Privacy, Family, Home, and Correspondence, and Protection of

⁵⁸ EC Data Protection Working Party, "Geolocation Services on Smart Mobile Devices", http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2011/wp185_en.pdf, accessed on 2 March 2020

Honor and Reputation. Privacy, as part of human rights, identifies the protection of data privacy as an important right.⁵⁹

Data protection is also a fundamental human right, namely the right of a person to obtain security for his data and for justification when errors are found in his data. The ASEAN Human Rights Declaration also clearly recognizes the right to data privacy as stated in Article 21, namely:

*"Every person has the right to be free from arbitrary interference with his or her privacy, family, home or correspondence including personal data, or to attacks upon that person's honor and reputation. Every person has the right to the protection of the law against such interference or attacks."*⁶⁰

In addition, data protection arrangements are also a key to various business problems and also economic problems in the field of information intensive business in the modern era. Today's modern business practices often involve data manipulation such as customer data segmentation, including data mining and data picking, creating customer profiles, consolidating global data processing, and other business processes.⁶¹

E. Artificial Intelligence

Artificial intelligence is a branch of computer science whose aim is to create an intelligent machine. This has become an important part of the technology industry in the present and also in the future. Usually, research related to artificial intelligence is very technical and specialized. This is

⁵⁹ Sinta Dewi, "Privasi atas...*Loc. Cit.*

⁶⁰ ASEAN Human Rights Declaration and The Phnom Penh Statement on the Adoption of the ASEAN Human Rights Declaration, *E-Booklet*, ASEAN Secretariat, Jakarta, 2013. p. 7

⁶¹ Sinta Dewi, "Konsep Perlindungan...*Loc. Cit.*

because science and techniques and processes of artificial intelligence are not simple and require a lot of processes and knowledge. The core problems of artificial intelligence are included in computer programming for certain properties which can be done by artificial intelligence such as knowledge, reasoning, problem solving, perception, learning, planning, and the ability to manipulate and move objects. Knowledge engineering is a core part of AI research.⁶²

F. Indonesia Data Privacy Protection

Since the amendment to the 1945 Constitution, the right to privacy including the protection of personal data privacy is recognized as a constitutional right as a citizen. This is in line with the inclusion of a special chapter on human rights into the amendment constitution listed in Article 28 A-J. Provisions regarding guaranteed protection of data privacy can be found in Article 28G paragraph (1) of the 1945 Constitution which states, "Every person has the right to protection for personal, family, honor, dignity, and property under his authority, and is entitled to a sense of safe and protection from the threat of fear to do or not do something that is a human right". In addition to constitutional protection, the involvement of Indonesia as a state party to the International Covenant on Civil and Political Rights (ICCPR), which was ratified through Law Number 12 of 2005, has also emphasized that

⁶² Ahmed Habeeb, *Artificial Intelligence*, University Mansoura, Egypt, 2017, p. 4

the Indonesian government's obligation to protect the privacy and personal data of its citizens.⁶³

Initially, the Indonesian government only regulates the protection of the right to privacy only related to the confidentiality of information and communication on one's person, which is realized through the prohibition of wiretapping,⁶⁴ in Law Number 36 of 1999 concerning Telecommunications. Then, the provisions governing the protection of personal data and privacy in the telecommunications and informatics sector or more broadly in the operation of the new electronic system came to the fore in line with the Law Number 11 of 2008 concerning Electronic Information and Transactions.⁶⁵

Furthermore, Indonesia also adopted the concept of right to be forgotten, which is a concept that states that electronic system operators must delete electronic information and or electronic documents that are not relevant to a person. This proposal is then accommodated in Article 26 paragraph (3) of Law Number 19 of 2016 concerning Amendment to Law Number 11 of 2008 concerning Information and Electronic Transactions.

Until finally, the protection of data privacy related to the implementation of electronic systems, including communication and informatics, was then formulated in Government Regulation Number 82 of 2012 and Regulation of

⁶³ Wahyudi Djafar and Asep Komarudin, *Perlindungan Hak...Op.Cit.*, p. 6

⁶⁴ Budi Agus Riswandi, "Legislation of Electronic Data and Service in Indonesian Public Institutions: A Proposed Future", *International Journal of Innovation, Creativity, and Change*, Vol. 8 Issue 12, 2019.

⁶⁵ *Ibid*

the Minister of Communication and Information Number 20 of 2016 concerning Data Privacy Protection in Electronic Systems.⁶⁶

Indonesia also have the newest Bills of the Data Protection which called by Draft Law of the Republic of Indonesia concerning Protection of Personal Data. Those Bills of law have purpose to fulfill the state obligation regarding the Constitution which stated that State have to responsible to protect their citizen. The Bills of Data Protection contain about Definition of Personal Data, Types of Personal Data, Elimination of Personal Data, Failure of Protection of Personal Data, Criminal Sanctions for Violations of The Use of Personal Data. Mr. President has signed the Draft of Personal Data Protection Bill, the bill will only be discussed by the government together with the House of Representatives after the discussion of the Omnibus Law Bill.

The bills of Data Protection contain 72 articles and 15 chapters. The bill regulates several important matters in the protection of personal data such as data definition, type, ownership rights, processing, exceptions, control and processor, dispatch, authorized institutions that manage data, and dispute resolution. The bill will also regulate international cooperation to sanctions imposed for misuse of personal data.⁶⁷

⁶⁶ *Ibid*

⁶⁷ The Bills of Law 2019, <https://www.hukumonline.com/pusatdata/detail/lt561f74edf3260/nprt/481/rancangan-undang-undang-tahun-2019/>, accessed on 19 February 2020

G. Paragraph 4 Opening of The 1945 Constitution

Indonesia as a State of Law certainly has what is referred to as the ground law or the main legal basis of all Laws, namely the 1945 Constitution. In the opening text of the 1945 Law there are 4 paragraphs, each of which has a sustainable value and has an objective the same one. With regard to data privacy protection, this is in accordance with what has been stated in paragraph 4 of the Preamble of the 1945 Constitution stating that the Government of the Republic of Indonesia has a constitutional obligation to protect all Indonesians and all Indonesian blood and to promote public welfare, educating the life of the nation, and also taking part in carrying out world order based on freedom, eternal peace and social justice. In connection with the context of the development of information and communication technology, the purpose of the State as stated in Paragraph 4 of the Preamble of the 1945 Constitution is manifested in the form of data privacy protection of every Indonesian citizen or citizen. This is nothing but to realize the protection of all Indonesian people who are one of the countries with the most population in the world.

H. European Union Data Privacy Protection

European Union is one of the first who is regulating about data protection. The most significant from European Union data privacy law developments that have emerged since the European Union adopted the Data

Protection Directive⁶⁸ in 1995 and occurred during the past year. European Union finally adopted the General Data Protection Regulation on April 27, 2016 after the European Commission proposed for 4 years. The General Data Protection Regulation repeals the current Data Protection Directive who has made in 1995.⁶⁹

European Union data protection law protects individuals (natural persons, as opposed to corporate entities or legal persons), which it refers to as “data subjects,” with respect to their data privacy processing. The GDPR defines both “processing” and “data privacy” broadly and in adherence to the Data Protection Directive, even though it reorganizes and updates the Data Protection Directive’s definitions. In this regulation, the relevant personal data are “any information relating to an identified or identifiable natural person as a data subject,” and may include location data, online identifiers, and other forms of information that may be used to identify a data subject directly or indirectly, in addition to classic identifying data such as names and identification numbers.⁷⁰

⁶⁸ European Commission, “Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on The Protection of Individuals with Regard to The Processing of Data and on The Free Movement of Such Data”, *Official Journal of the European Communities*, L 281 of 23 November 1995

⁶⁹ W. Gregory Voss, “European Union...*Loc.Cit.*”

⁷⁰ *Ibid*

I. Regulation of the Minister of Communication and Information Number 20 of 2016

Protection of data privacy according to the Regulation of the Minister of Telecommunications and Information Technology covers the protection of the process, acquisition and collection, processing and analyzing, storage, appearance, announcement, delivery, distribution and/or opening of access, and destruction of data privacy. In addition to the coverage of data privacy protection, it covers all aspects and stages of processing data privacy, in addition it also regulates the rights of the owner of data privacy, the obligations of data users, as well as the obligations of the electronic system providers in all stages of data processing.

This regulation also regulates the obligation to place data centers within the territory of Indonesia, this applies to electronic system providers for public services. This data center in the territory of Indonesia is intended as a facility for locating Electronic Systems and related components for the purpose of data placement, storage and processing.⁷¹

J. General Data Protection Regulation (EU)

The General Data Protection Regulation is the legal basis for the free flow of data production and data transportation across the Digital Single Market. The European Commission wants to ensure all of the actors such as EU governments, national data protection authorities, companies, and also

⁷¹ Wahyudi Djafar, "Hukum Perlindungan Data Pribadi di Indonesia", Paper Presented at Socialization *Tantangan Hukum dalam Era Analisis Big Data*, Universitas Gadjah Mada,, Yogyakarta, 2019

citizens. The General Data Protection Regulation was an update and modernizes from the principles of enshrined in the 1995 Data Protection Directive to guarantee privacy rights. The General Data Protection focuses on:

1. reinforcing individuals rights;
2. strengthening the EU internal market;
3. ensuring stronger enforcement of the rules;
4. streamlining international transfers of personal data privacy and;
5. setting global data protection standards.

The changes will give people more control over their personal data privacy.⁷²

K. Concept of Data Privacy Protection in The Business World

Data is very vital in terms of the company. The bigger the company, the greater the need for data. As you know, data privacy is a collection of information that is individual, confidential and closed. In the business world, data plays a very important role in terms of keeping the company running. In the business world, companies hold control over data privacy that starts from employee data, supplier data, customer data, financial data, company development data and other data that are important to the company.

Companies must protect their data privacy. That is because companies also have secrets in their data, especially in business strategy data to avoid hacking from other parties who intend to steal the company's confidential data.

⁷² European Commission, *Fact Sheet: Question and Answer General Data Protection Regulation*, https://ec.europa.eu/commission/presscorner/detail/en/MEMO_17-1441, accessed on 19 February 2020

Data privacy plays an important role for the company's operations. This can happen because to safeguard company data from data theft efforts, to increase improvement for companies that lead to branding at the company where the company will have a well-known brand but must also protect the company's secrets through data privacy protection.

In addition, protection of data privacy is also needed when force majors or natural disasters occur that can suddenly cause major damage to the company. So with the protection of data privacy, the company can save valuable assets to avoid excessive losses.

L. The Protection of Data Privacy toward International Perspective

Information is a matter that is very important in many ways such as for economic, social, and political considerations. That is because there are currently large-scale investments that have arisen from innovative and creative applications in the information technology industry over the past few decades. Dependence on information technology tools has increased rapidly and has led to the idea that thinking that data processing is an indispensable activity. At present, the widespread use of the internet worldwide has contributed to the increase in data processing activities.⁷³ This makes the Internet possible to exchange information more easily and quickly between individuals even if they are in a short distance or a long distance. The easier it is for someone to obtain data privacy, the more dangerous it is without limitation. This can be

⁷³ Jacqueline Klosek, *Data Privacy in The Information Age*, Greenwood Publishing, United States, 2000, p. 1

dangerous because with the access to obtain data, the greater the possibility of cybercrime.

In an international perspective, there are several international documents that aim to describe and protect data processing systems that are legal and valid. The OECD Guidelines on the Protection of Privacy and Transborder Flow on Personal Data, published in 1980. Initially, it can be mentioned that among international instruments, that OECD documents do not have binding power, so that the fundamental principles are only considered as guideline rules for countries where the field of data protection is not specifically regulated.⁷⁴ However, with the development of technology and modern communication networks that are increasingly sophisticated, it is necessary to update the rules to increase the level of protection of related matters. Therefore, the OECD issued an updated guidebook in 2013. Since the OECD was passed into a special regulation governing data protection, the OECD Guidelines have a significant impact towards the OECD Member States and beyond. As data protection, the United Nations (UN) effort must be emphasized. In 1990, the UN Guidelines for the Regulation of Computerized Personal Data.⁷⁵ Files were adopted by the General Assembly encompassing nine basic principles, such as principle of lawfulness and fairness, the principle of accuracy, principle of the purpose-specification, principle of interested-person access, the principle of non-discrimination, the power to

⁷⁴ Blume, Peter/Saarenpää, Ahti/Schartum, Dag Wiese/Seipel, Peter, *Nordic Data Protection*, IustusFörlag, Uppsala, 2001, p. 6

⁷⁵ United Nations High Commissioner for Human Rights, downloaded from United Nation Digital Library <https://digitallibrary.un.org/record/43365>, accessed on 3 March 2020

make exceptions, the principle of security, supervision, and sanctions, transborder data flows.

The normative formal basis of the data protection law comes primarily from the catalog of fundamental human rights set out in certain multilateral instruments, especially in the Universal Declaration of Human Rights (U.D.H.R).⁷⁶ The International Covenant on Civil and Political Rights (ICCPR)⁷⁷ together with major regional human rights treaties, such as the European Convention on Human Rights and Fundamental Freedoms (ECHR)⁷⁸ and the American Convention on Human Rights (ACHR)⁷⁹ are international instruments that expressly and openly acknowledge that privacy is a very fundamental human right.

In the case of other international legal instruments, there are no global conventions or agreements that really concern or discuss data protection. However, while there is a global legal approach called the Convention of the Council of Europe which has the aim of protecting individuals in connection with the automatic processing of data privacy (Convention C.o.E).⁸⁰ This instrument is open for ratification by countries not belonging to the European Union, even if it is only valid at the invitation of the Council.

⁷⁶ Universal Declaration of Human Rights: Adopted and Proclaimed by United Nations General Assembly Resolution 217A (III) of 10 December 1948

⁷⁷ International Covenant on Civil and Political Rights: Adopted by United Nations General Assembly Resolution 2200A (XXI) of 16 December 1966

⁷⁸ European Treaty Series Number 5 on Convention for The Protection of Human Rights and Fundamental Freedom, Rome, 1950, p. 1

⁷⁹ Organization of Amerika States Treaty Series Number 36 on Signatures and Current Status of Ratifications: American Convention on Human Rights "Pact of San Jose, Costa Rica", 1978

⁸⁰ European Treaty Series Number 108 on Convention for The Protection of Individuals with regard to Automatic Processing of Personal Data, Strasbourg, 1981, p. 1

European Union is an international instrument that constitutionally recognizes the protection of personal data which is a very basic human right. European Union also adopted several guidelines regarding data protection. The first and most important thing to be adopted is Directive 95/46/EC concerning the Protection of Individuals relating to Data Processing Privacy and about the Free Movement of Data (E.U. Instruction).⁸¹ This instrument is binding on the European Union and its member states, by qualifying that this directive does not apply to activities related to public security, defense, State security and State activities in the field of criminal law. In addition, directives regarding European instruments for European countries have had a considerable influence on other countries. It is therefore important to prohibit anyone from fulfilling the requirements for the transfer of data privacy to countries unless they provide and guarantee an adequate and safe level of data protection.

M. Islamic Perspective on The Data Privacy Protection

Islam has long recognized and guaranteed the existence of human rights. Islam recognizes 10 human rights which include right to life, right to justice, right to choice, right to privacy, right to basic necessities of life, right to equal

⁸¹ European Commission, "Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on The Protection of Individuals with Regard to The Processing of Data and on The Free Movement of Such Data", *Official Journal of the European Communities*, L 281 of 23 November 1995, p. 31

protection of law, right of property, right to live in dignity, right to revolt, and the right of free expression.⁸²

Islamic scholars and scholars have looked and made an *ijtihad* to see the cause of justice and freedom for humanity from religion, gender, gender, skin color, and other factors to be discussed by looking at the fact that Allah SWT in his capacity as the Provider of Legal certainty as basic source of human rights. Allah SWT has given human rights, no individual, state or institution has any power to withdraw and reject the rights that have been given by Allah SWT. Every human being of Islam has the right to live properly. The Right to Life is a divine gift given by Allah SWT and its purity must be accepted and preserved in any way.

Islam as a sacred religion, has always guaranteed the right to privacy, freedom, dignity and equality of each adherent of his religion. The Qur'an as the Muslim holy book has long governed and mentioned that one's privacy is not a public property and no human being can be accessed without permission. In the Al-Qur'an it is mentioned in Surah An-Nur verse 27 which is stated:

يٰۤاَيُّهَا الَّذِيْنَ ءَامَنُوْا لَا تَدْخُلُوْا بُيُوْتًا غَيْرَ بُيُوْتِكُمْ حَتّٰى تَسْتَأْذِنُوْا وَّتُسَلِّمُوْا
عَلٰى اٰهْلِهَا ذٰلِكُمْ خَيْرٌ لَّكُمْ لَعَلَّكُمْ تَذَكَّرُوْنَ ﴿٢٧﴾

“*Yā ayyuhallāzīna āmanu lā tadkhulu buyūtan gaira buyūtikum ḥattā tasta`nisu wa tusallimu 'alā ahlihā, zālikum khairul lakum la'allakum tazakkarun*”

⁸² Mariam Sherwani, "The Right to Privacy under International Law and Islamic Law: A Comparative Legal Analysis, *Kardan Journal of Social Sciences and Humanities*, Volume 1, Issue 1, June 2018, p. 34

Means: “O you who believe, do not enter a house that is not your home before asking permission and greet the residents. That is better for you, so that you (always) remember.”

The right to privacy is a sacred and absolute right, and cannot be contested, nor can it be revoked in Islam. This privacy has been guaranteed and approved by Islam and can be asked as a primary right. Privacy for someone is sacred and the issuance of privacy must be a strong reason to do and not be arbitrary to be disclosed. Nothing can eliminate someone's privacy without a legal process, which shows that privacy rights are incomplete in Islam.

Besides being contained in the Qur'an, there is a story of the Prophet which tells us that at that time a man came to see the Prophet Muhammad (PBUH) and asked for permission to enter while standing right in front of the door. At that time, the Prophet SAW said to him: "Stand on the Side" The purpose of the Command to ask permission is to prevent the pouring of appearance in the house.⁸³ This means that privacy is something that is very personal. No one can see or steal the privacy of others. This shows that Islam as a religion highly respects privacy and therefore protection of one's data privacy is very important and cannot be intervened by anyone.

⁸³ Mariam Sherwani, "The Right to...*Op.Cit.*, p. 36

CHAPTER III

**PROTECTION OF DATA PRIVACY IN THE DIGITAL ERA:
COMPARATIVE APPROACH BETWEEN INDONESIAN LAW AND
EUROPEAN UNION LAW**

A. The Comparison of Legal Protection of Data Privacy in Indonesia and European Union

Comparative research is research conducted by researchers that aims to compare a variable that is used as an object of research, between different subjects or time is not the same and then find the causal relationship as a result. Comparative research is a form of descriptive research that aims to find a solution to the problem by means of an analysis of the causal relationship between 2 different variables, namely by choosing certain factors related to the variables to be studied and comparing one factor to the factor others.⁸⁴ By using this comparison method the researcher intends to draw a conclusion by comparing certain points in the similarities and differences regarding data privacy protection in Indonesia so that results will be found so that Indonesia can have data privacy protection arrangements that can meet all the needs of the Indonesian people.

1. Similarities Between Indonesia and European Data Protection

Indonesia as a sovereign state has regulated about the protection of the data privacy. Data has turn in to the world's most valuable resource

⁸⁴ Winarno Surakhmad, *Pengantar Penelitian Ilmiah: Dasar, Metode, dan Teknik*, Tarsito, Bandung, 1985, p. 84

more than Oil.⁸⁵ That's why one of the reason of data of individual privacy has to be protected. Regarding the protection of data privacy, this research will make an comparative approach toward the similarities and differences between Indonesia and European law and to study how Indonesian law can be more strongest in part of data privacy protection. Thus, here are the similarities of Indonesia and European Union law toward Data Privacy protection:

a. General Understanding

Broadly, Indonesia and European Union data protection has similar purposes that the understanding of data is anything information relating to an identified or identifiable from a natural person; an identifiable natural person is one who can be identified, directly or indirectly, that is stored, maintained, and maintained truthfully. Both laws agreed that the data contained someone or individual privacy such as name, location data, an identification number, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Thus, all was part of the data privacy that should be protected by the controller system and it must be fully protected by the government regarding to the Human Rights protection. Data privacy really needs to be protected because when anyone or someone can hijack that all

⁸⁵ Kiran Bhageshpur, "Data Is The New Oil-And That's A Good Thing", <https://www.forbes.com/sites/forbestechcouncil/2019/11/15/data-is-the-new-oil-and-thats-a-good-thing/#265e1d8c7304>, accessed on 15 November 2019

information, they would take it into account the criminality with the data privacy.

b. Principle of Data Processing

The Indonesia regulation has similarities with the European GDPR in regards to data processing principles. There are some principles toward the data processing as follows:

- 1) lawfulness;
- 2) transparency;
- 3) the relevance of the objectives of acquisition, collection, processing, analysis, storage, appearance, announcement, delivery and dissemination;
- 4) legitimate purposes;
- 5) collecting for specific.

c. Rights of Data Subject

Data subject is the term given by European GDPR, meanwhile in Indonesia law it is called as Data Owner's Rights. Every individual has his own right in regarding to obtaining his right absolutely and completely. With regard to the rights of data subject, there are several rights that are obtained by the data subject:

1) Transparency

The controller shall take an appropriate measure to provide any communication to the data subject relating to the data processing in a concise, intelligible, transparent, and easily accessible.

2) Obtain Confidentiality over The Data Privacy

The data subject or data owners have fully rights toward the confidentiality of their own data privacy. The controller and processor should maintain and protect the confidentiality of the data subject.

3) Get Full Access and Opportunity

The data subject as the subject of data privacy has fully access and opportunity toward the data privacy. Those access and opportunity were shaped as to change, update also to delete the data privacy toward the data controller.

d. User or Controller Responsibility

Taking into account to maintain the nature, scope, context, stored, collected and purposes of processing as well as the risks and severity for the rights and freedoms of natural persons, the controller shall implement appropriate technical and organizational measures to ensure

and to be able to demonstrate that processing is performed in accordance with the Regulation. Protect all documents containing from misuse.

2. Differences Between Indonesia and European Data Protection

a. European Union has 6 Basic Principles

European GDPR has 6 main principles toward the hole of the regulation. The difference is Indonesia only has the principle of good data processing that is part of one of the 6 main principle in EU GDPR. Those 6 principles are:

1) Principle Relating to Processing of Personal Data

In this principle, EU GDPR provides some basic classifications of things that must be considered in the use of data privacy of each individual used. These are lawfulness, fairness and transparency, collected for specified, explicit and legitimate purposes, adequate, relevant and limited to what is necessary processed in a manner that ensures appropriate security.

2) Principle of Lawfulness of Processing

Data processing from individuals must have certain, specific, and clear consents. The data processing must also comply with a legal obligation to the controller as the subject. Besides that, it also

regulates the importance of processing data privacy that is used to protect vital objects from the data subject.

3) Principle of Conditions for Consent

When data processing is based on the agreement of the data owner, the controller must be able to show that the subject of data privacy has agreed on the processing of his data privacy. The subject of the data must have the right to withdraw the agreement that has been jointly signed between the controller and the data subject at any time.

4) Principle of Conditions Applicable to Child Consent in Relation to Information Society Service

A child can be consulted lawfully for information society services only when the child is 16 years old. However, when the child is under 16 years old the data processing must have certain consent and can also be lawfully validated that consent is given or authorized by the holder of parental responsibility over the child.

5) Principle of Processing of Special Categories of Data Privacy

Processing data privacy reveals racial or ethnic origin, religious or philosophical beliefs, political opinions or trade union membership, biometric data and genetic data processing for the

purpose of identifying a person, data regarding health or data concerning the natural world of one's sexual life or sexual orientation are prohibited. It aims to protect the vital interest of data subject and protect sensitive personal data. This is in line with the meaning of privacy which is something that should not be disclosed and must be respected as one of human rights.

6) Principle of Processing Data Relating to Criminal Convictions and Offences

The processing of data privacy relating to criminal penalties and related violations or security can only be carried out under the control of an official authority or the processing of data authorized by the State provides appropriate protection for the rights and freedoms of data subjects.

b. EU GDPR Rights of Data Subject

Indonesia and EU GDPR have similarities in terms of the rights of data subject in general. However, EU GDPR has a specialty that Indonesian government does not. It is restriction of regulation which means that Each European Union member country can limit the rights of subject data through the legislature. This is done while respecting the essence of basic rights and freedoms. This restriction is carried out for several reasons such as:

- 1) national security;
- 2) defense;
- 3) public security;
- 4) prevention, investigation, detection or prosecution of criminal acts or execution of criminal penalties;
- 5) state interests especially the important economic or financial interests of the state, including monetary, budget and taxation issues, public health and social security;
- 6) protection of judicial independence and due process;
- 7) prevention, investigation, detection and prosecution of ethical violations for regulated professions;
- 8) the monitoring, inspection or regulatory functions are connected, sometimes even, with the exercise of official authority in the cases mentioned in points (a) to (e) and (g);
- 9) protection of data subjects or the rights and freedoms of others;
- 10) enforcement of civil law claims.

c. EU GDPR Differentiate Controller and Processor

Indonesia has regulated about the data user. It means that the data user who controls and processes individual's data privacy toward the electronic system such as Artificial Intelligence. However, EU GDPR has regulated more comprehensively which separated that there were a controller and processor with their own function. Controller is

considering the nature, scope, context, and purpose of processing as well as the risks of various possibilities and severity for the rights and freedoms of individuals. Therefore, the processor processing will be carried out on behalf of the controller and he will only use processors that provide adequate guarantees to implement appropriate technical and organizational steps in such a way as to process it. The processor must not use another processor without special or general written permission from the controller.

d. EU GDPR has Controller and Processor Security of Processing

The security of processing generates appropriate technical and organizational measurement to ensure the level of security of any risk. Some steps to carry out the security are as follows:

- 1) pseudonymization and encryption of personal data;
- 2) the ability to ensure the confidentiality, integrity, availability, and resilience of systems and processing services that are sustainable;
- 3) the ability to recover the availability and access to data privacy in a timely manner in the event of a physical or technical incident;
- 4) a process for regularly testing, assessing, and evaluating the effectiveness of technical and organizational measures to ensure processing security.

With forth step above, it could be the way to protect someone or individual data privacy toward Artificial Intelligence. The most of data

processing security methods that be used in an electronic system and Artificial Intelligence system is Encryption system or in some messenger application, it called by end-to-end security. Encryption is the process of converting information or a message which is referred to as plaintext into a difficult unreadable form called ciphertext by using an encryption algorithm.⁸⁶ The easiest to understand encryption is the method by which information is converted into a secret code that hides the information's true meaning. So, it works like blocking someone who wants to hijack the information to replace it with the false information one.

e. EU GDPR Transfer of Data to The Third Country or International Organization

Under the GDPR, all of the state members of the European Union have identical protection of personal data privacy. Data privacy can thus be transmitted freely within this area without any restrictions. The transfer of data privacy to the third country is when data privacy is made available to someone outside the EU. There are some examples of transferring data privacy to the third country/organization:

- 1) when we send documents that contain personal data by e-mail to a person in a country outside the EU;

⁸⁶ T. Olufhunsi, *Data Encryption*, University of Salford, Manchester, 2019

- 2) when we give someone outside the EU access, for example reading rights, to data privacy stored within the EU;
- 3) when we store personal data in a cloud service that is based outside the EU;
- 4) when we store data privacy, for example on a server, in a country outside the EU;
- 5) when we use service providers outside the EU.

There are some certain conditions that are permitted to transfer the data privacy to the third country/organization such as:

- 1) there is a decision from the European Commission that ensures an adequate level of protection;
- 2) the data subject has taken appropriate protection measures, for example, Binding Corporate Rules or Standard Contractual Clauses;
- 3) special situations and single cases.

f. EU GDPR Penalties

Indonesia just makes 3 steps of administrative sanction without any strict sanction. EU GDPR have very strict and very high cost of sanction for who break the rule of GDPR. When the processor or the controller or even both are doing such violation, the commission will sue for written writing in cases of first and non-intentional noncompliance

and for the second step of penalties is regular periodic data protection audits.

The Commission will be given middle rate of administrative sanction fine up to €10 million or up to 2% of the annual worldwide turnover of the preceding financial year in case of an enterprise, whichever is greater, if there has been an infringement of the following provisions:

- 1) the obligations of the controller and the processor;
- 2) the obligations of the certification body;
- 3) the obligations of the monitoring body.

The Commission will be given high rate of administrative sanction or granted by the commission fine up to €20 million or up to 4% of the annual worldwide turnover of the preceding financial year in case of an enterprise, whichever is greater, if there has been an infringement of the following provisions:

- 1) the basic principles for processing, including conditions for consent;
- 2) the data subject's rights;
- 3) the transfers of personal data to a recipient in a third country or an international organization;
- 4) any obligations pursuant to member state law adopted;

- 5) on-compliance with an order or a temporary or definitive limitation on processing or the suspension of data flows by the supervisory authority or failure to provide access in violation

g. Regulation of the Minister of Communication and Information Technology Number 20 Year 2016 Does Not Have Similar Position with EU GDPR 2016

Regulations concerning the protection of data privacy in Indonesia are specifically regulated in Regulation of the Minister of Communication and Information Technology Number 20 Year 2016. This regulation was derived from the implementation of Government Regulation Number 82 of 2012 article 15 concerning Safeguarding Data from Users of Electronic Systems. In terms of legal hierarchy in Indonesia, the regulation of the trick is a statutory regulation in the form of which is referred to in Law Number 12 of 2011. Ministerial regulations are only implementing regulations of government regulations. Then, the binding power of ministerial regulations is regulated in article 8 paragraph 2 of Law Number 12 of 2011 which reads:

"Peraturan perundang-undangan sebagaimana dimaksud dalam ayat 1 diakui keberadaannya dan mempunyai kekuatan hukum mengikat sepanjang diperintahkan oleh peraturan perundang-undangan yang lebih tinggi atau dibentuk berdasarkan kewenangan."⁸⁷

⁸⁷ Article 8 paragraph 2 of Law Number 12 of 2011 on Establishment of Laws and Regulations

Then, the legal power of ministerial regulations can only be carried out with two conditions namely: the existence of orders from higher regulations and formed based on authority. So that the position of the ministerial regulation is under government regulation and law enforcement must be based on what has been regulated in government regulations.

From the above explanation, we know that the Regulation of the Minister of Communication and Information Technology Number 20 Year 2016 doesn't have strong enough position to control the protection of data privacy and doesn't have similar position in the law hierarchy with the EU GDPR.

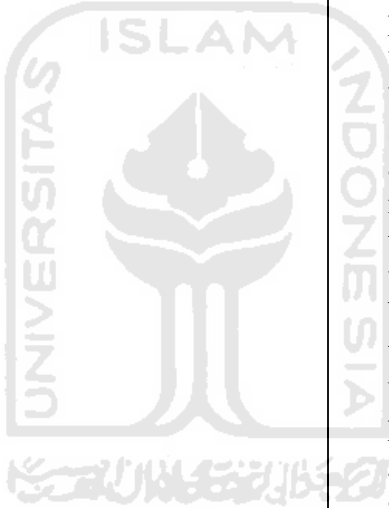
The EU General Data Protection Regulation has strong position to control all about the data protection. It is because because the EU General Data Protection Regulation was the reference for all the state members. The General Data Protection Regulation aims to creating strong and more coherent data protection framework in European Union, whit backed by strong enforcement.⁸⁸

As we have done comparing all of the similarities and differences of the protection toward data privacy which is regulated in Indonesian Law and European Union Law, those similarities and differences will be presented bellow:

⁸⁸ Council of the European Union report with subject "Council Position Findings on The Application of The General Data Protection Regulation (GDPR)", Brussels, 19 December 2019, p. 3

Table 2
Similarities and Differences Between
Indonesian Law and European Union Law

Source of Comparison	Similarities	Differences
Indonesian Law and European Union Law	1. Broadly, Indonesia and European Union data protection has similar purposes that the understanding of data is anything information relating to an identified or identifiable from a natural person; an identifiable natural person is one who can be identified, directly or indirectly, that is stored, maintained, and maintained truthfully.	1. European GDPR has 6 main principle toward the hole of the regulation. The difference is Indonesia only has the principle of good data processing which is those principle of data processing is part of one from the 6 main principle in EU GDPR.
	2. The Indonesia regulation has similarities within the European GDPR in regards of data processing principles. There are some principle toward the data processing which are: Lawfulness, Transparency, the relevance of the objectives of acquisition, collection, processing, analysis, storage, appearance, announcement, delivery and dissemination, Legitimate purposes, Collected for specific	2. Indonesia and EU GDPR have similarities in the term of the rights of data subject in general. But EU GDPR has one special that Indonesia government doesn't have those part of rights of data subject. It is Restriction regulation. Which mean Each European Union member country can limit the rights of subject data through the legislature. this is done while respecting the essence of basic rights and freedoms.
	3. Data subject is the term from the European GDPR, and in Indonesia	3. Indonesia has regulated the data user. Its mean the user of data who

	<p>law it called by Data Owner's Rights. Every individual has their own rights regarding to obtain his/her rights absolutely and completely. There are several rights: Transparency, Obtain confidentiality over the data privacy, Get full access and opportunity.</p> 	<p>control and process the data privacy of someone / individual toward the electronic system such as Artificial Intelligence. But EU GDPR has regulated more comprehensively which separated that there were a controller and processor with their own function. Controller is considering the nature, scope, context and purpose of processing as well as the risks of various possibilities and severity for the rights and freedoms of individuals. Therefore, the processor processing will be carried out on behalf of the controller, the controller will only use processors that provide adequate guarantees to implement appropriate technical and organizational steps in such a way as to process it.</p>
	<p>4. Controller responsibility is to maintain the nature, scope, context, stored, collected and purposes of processing as well as the risks and severity for the rights and freedoms of natural persons.</p>	<p>4. EU GDPR has controller and processor security of processing. The security of processing generated implement appropriate technical and organizational measures to ensure a level of security appropriate to the risk.</p>
		<p>5. EU GDPR has regulated</p>

		<p>the transfer of data to the third country or international organization. Under the GDPR, all of the member states of the European Union have uniform protection of personal data privacy. Data privacy can thus be transmitted freely within this area without any restrictions. The transfer of data privacy to the third country is when data privacy is made available to someone outside the EU.</p>
		<p>6. Indonesia makes 3 steps of administrative sanction without any strict sanctions. EU GDPR has a very strict and very high cost of sanction for those who break the rule of GDPR. When the processor or the controller and maybe both of the doping violations, the commission will sue of warning in writing in cases of first and non-intentional noncompliance, and for the second step of penalties is regular periodic data protection audits.</p>
		<p>7. Regulation of the Minister of Communication and Information Technology</p>

		<p>Number 20 of 2016 does not have the same position as EU GDPR 2016. The position of ministerial regulation is under government regulations and law enforcement must be based on what has been regulated in government regulations. Thus, Regulation of the Minister of Communication and Information Technology Number 20 the Year 2016 does not have a strong enough position to control more about protecting data privacy.</p>
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The Government of Indonesia, through the Draft Personal Data Protection Act (RUU PDP) has submitted to the House of Representatives of the Republic of Indonesia. The Minister of Communication and Information has sent a draft of PDP bill together with a Presidential letter to the House of Representatives since January 2020.⁸⁹ The Draft Law on Data Protection regulates several new things that have indeed been adopted from the European Union General Data Protection Rule. Some important adoptions in the PDP bill include data security, then related to data ownership, then related to data users who need accurate data. As well as about managing data traffic, both

⁸⁹ Hari Widowati, "Diteken Jokowi, Ini Poin-Poin RUU Perlindungan Data Pribadi", <https://katadata.co.id/berita/2020/01/29/diteken-jokowi-ini-poin-poin-ruu-perlindungan-data-pribadi>, accessed on 27 May 2020

between regions and countries (Cross Border) and the division of data types into 2 types⁹⁰ namely general data consisting of full names, gender, nationality, religion, and/or data combined to identify a person.

Furthermore, the next type of data privacy is the specific one that consist of data privacy that consists of health data and information, biometric data, genetic data, sexual life/orientation, political views, crime records, child data, and personal financial data. Some interesting things from the PDP bill that will make it strong data protection law are the existence of regulations on data traffic management, both between regions and countries and the application of sanctions against Actors who disclose or use data privacy that is not their property against the law will be subject to a seven-year prison sentence or a maximum fine of Rp. 70 billion.⁹¹ Then, in addition to being subjected to a basic crime, the defendant may also be additionally convicted in the form of confiscation of income and assets obtained or the proceeds of the crime. This certainly becomes a big leap for regulating data privacy protection in Indonesia, given that we do not yet have a regulation that truly regulates data privacy protection that is strong and binding.

⁹⁰ Chapter 2 Article 3 of Draft of Personal Data Protection Act

⁹¹ Chapter 13 Article 61 of Draft Personal Data Protection Act

B. The Background of The Similarities and Differences in The Protection of Data Privacy between Indonesia and The European Union

1. Regulations Regarding The Protection of Indonesia's Data Privacy are Still Very Weak and General in Nature

Indonesia is still considered weak in terms of legislation governing data privacy protection. This is because these rules are still weak and are very general in nature and are stipulated into several laws and regulations which are of course separate and only describe the concept of data privacy protection in general and its rules are only contained in the Minister of Communication and Information Republic of Indonesia Regulation Number 20 of 2016.

Indonesia has several laws and regulations governing data privacy protection but only describes a very general concept namely the Information and Electronic Transaction Law Number 11 of 2008, Law Number 43 of 2009 concerning Archives, Law Number 8 of 1997 concerning Company Documents, Law Number 36 of 2009 concerning Health, Law Number 36 of 1999 concerning Telecommunications as well as Law Number 24 of 2013 concerning Amendments to Law Number 23 of 2006 concerning Population Administration and Government Regulation Number 82 of 2012 concerning Electronic Transactions.⁹²

Law Number 11 of 2008 or what is commonly referred to as the Electronic Information and Transaction Law (ITE Law), is the first

⁹² Lia Sautunnida, "Urgensi Undang-Undang Perlindungan Data Pribadi di Indonesia: Studi Perbandingan Hukum Inggris dan Malaysia", *Kanun Jurnal Hukum*, Vol. 20 No. 2, 2018, p. 382

regulation that gave birth to a new understanding of the protection of the existence of data or electronic information in general and also of a privacy nature. After the enactment of this law, further explanation is mandated into Government Regulation Number 82 of 2012 which is then poured into a special regulation regarding data protection into Minister of Communication and Information Regulation Number 20 of 2016 concerning Data Protection. In Law Number 11 of 2008, actually it has been regulated to handle a number of things such as the use of someone's data without permission, the protection carried out by the electronic system organizer for subject data and protection from illegal interventions.

However, Law Number 11 of 2008 is still not very significant in terms of regulating the use of data privacy. This is because some of the articles contained in the regulation are only general provisions and do not explicitly explain data privacy protection and also in dealing with various global issues that are currently being discussed.⁹³ So it can be concluded that the regulations regarding data privacy protection in Indonesia are still very general and do not have a specific rule that has a strong and firm position and is still fragmented in several regulations and there is only one regulation namely Regulation of the Minister of Communication and Information Number 20 of 2016 which regulates specifically but does not have strong legal force and is still weak.

⁹³ Syarpani, "Tinjauan Yuridis Terhadap Perlindungan Data Pribadi di Media Elektronik", *Jurnal Beraja Niti*, Vol. 3 No. 6, 2014, p. 7

There are will be several legal problems if the state doesn't have any sufficient data protection regulation. There will be several hijacker cases toward data not only for data privacy for individuals but also for the confidential information of state. The impact is not only on the economic sector and criminal sector but also on the public protection, tribe protection, and also to the national defense. Indonesia has to make the data sufficient data protection regulation.

2. European Union already Has Ideas and Regulations in Advance Regarding The Protection of Data Privacy

European countries are dominated by developed countries that have long been developing technology in various fields such as aviation technology, weapons, and information technology. The law regarding data privacy protection also goes hand in hand with technological advances, especially in the field of communication and information technology. European Council realizes that a person's data is very basic and important for human rights. This shows that after the concept of a 'right to privacy' emerged in international law as outlined in Article 12 of the Universal Declaration of Human Rights.⁹⁴

⁹⁴ Article 12 of Universal Declaration of Human Rights

Then, Article 8 of the European Convention on Human Rights⁹⁵ states that:

"everyone has the right to respect for his private and family life, his home and his correspondence, and no interference by a public authority with the exercise of this right is allowed except in accordance with the law and where necessary in a democratic society for certain important and legitimate interests."

This shows that the European Union has long been preparing for the protection of data privacy. This resulted in two recommendations from the Committee of Ministers to the States to take all necessary steps to give effect to certain principles on the protection of the privacy of individuals in the private and the public sector.⁹⁶ This coincides with Germany as the country first passed the Data Privacy Protection Act in 1971 which was then followed by Sweden in 1972.

Then came the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data in January 1981. The purpose of the Convention is secure for every individual, whatever his nationality or residence, respect for his rights and fundamental freedoms, and in particular his right to privacy, with regard to automatic processing of data privacy.⁹⁷

The development of data privacy protection in the European Union continued until 1995 a new regulation called Directive 95/46/EC emerged

⁹⁵ Article 8 of the European Convention on Human Rights

⁹⁶ Resolution (73) 22 on The Protection of The Privacy of Individuals vis-a-vis Electronic Data Banks in The Private Sector and Resolution (74) 29 on The Protection of The Privacy of Individuals vis-a-vis Electronic Data Banks in The Public Sector

⁹⁷ P. Hustinx, *EU Data Protection law: The Review of Directive 95/46/EC and The Proposed General Data Protection Regulation*, University Institute's Academy of European Law, Germany, p. 1-12

which had 2 main objectives namely requiring all Members of the European Union to protect the fundamental rights and freedoms of natural persons, and in particular the right to privacy with respect to the processing of data and to restrict, nor to prohibit the free flow of personal data between the Member States for reasons connected with such protection.⁹⁸ In addition, Directive 95/46/EC also revisits the basic principles of pre-existing data protection by providing a more detailed and specific explanation.

In the end, there is significant legal development related to data privacy protection law in 2016, the EU adopted the General Data Protection Regulation (GDPR), one of its greatest achievements in recent years. It replaces the 1995 Data Protection Directive which was adopted at a time when the internet was in its infancy.⁹⁹ This GDPR is comprehensive and covers almost everything about processing data privacy. In addition to this, the implementation of GDPR is not only to affect European-based data controllers and processors, but also to anyone who offers goods or services to, monitor the behavior of every individual of all EU citizens.

⁹⁸ European Commission, "Directive 95/46/EC...*Loc. Cit.*

⁹⁹ Wahyudi Djafar, etc., *Perlindungan... Op. Cit.*, p. 4

CHAPTER IV

CLOSING

A. Conclusion

As a form of Comparative Approach, in making comparisons, there are 2 points of conclusion which conclude the differences and similarities have been found between Laws in Indonesia and the European Union which regulates the protection of data privacy in and the background of differences. *First*, the differences and similarities of the Indonesia and European Union regulation. These equations include:

1. Indonesia and European Union data protection has similar purposes that the understanding of data is anything information relating to an identified or identifiable from a natural person; an identifiable natural person is one who can be identified, directly or indirectly, that is stored, maintained, and maintained truthfully.
2. The Indonesia regulation has similarities within the European GDPR in regards to data processing principles. There are some principles toward the data processing which are: lawfulness, transparency, the relevance of the objectives of acquisition, collection, processing, analysis, storage, appearance, announcement, delivery and dissemination, legitimate purposes, collected for specific.
3. The data subject is the terms from the European GDPR, and in Indonesia the law is called by Data Owner's Rights. Every individual has their own

rights regarding obtaining his or their rights absolutely and completely. There are several rights: transparency, obtain confidentiality over data privacy, get full access, and opportunity.

4. Controller responsibility taking into account to maintain the nature, scope, context, stored, collected, and purposes of processing as well as risks and severity for the rights and freedoms of natural persons.

In addition to finding some similarities, in the two regulations also found many very basic differences between the two regulations, among them are:

1. European GDPR has 6 main principles toward the hole of the regulation.
2. Indonesia and EU GDPR have similarities in the term of the rights of the data subject in general.
3. Indonesia has regulated the data user. It means by the user of data who control and process the data privacy of someone/individual toward the electronic system such as Artificial Intelligence. But EU GDPR has regulated more comprehensively which separated that there was a controller and processor with their own function.
4. EU GDPR has controller and processor security of processing.
5. EU GDPR has regulated the transfer of data to the third country or international organization.
6. Indonesia just made 3 steps of administrative sanction without any strict sanctions. EU GDPR has a very strict and very high cost of sanction for those who break the rule of GDPR.

7. Regulation of the Minister of Communication and Information Technology Number 20 of 2016 does not have the same position as EU GDPR 2016. The position of ministerial regulation is under government regulations and law enforcement must be based on what has been regulated in government regulations.

After taking a comparative approach, it can be seen that regulations in Indonesia are still very weak towards protecting data privacy. When in fact, currently Artificial Intelligence as a computer system has been used a lot by electronic operators/service providers in Indonesia. So that the differences contained in the European Union can be used as the direction of view for how data privacy protection arrangements in Indonesia in the future.

Second, after discovering the differences and similarities of the regulations regarding data privacy protection in Indonesia and the European Union, there are several factors that make several factor had differentiate between the two regulations such as follows:

1. Indonesia is currently still very weak in terms of legislation governing data privacy protection. This is because these rules are still weak and are very general in nature. That is because that the rules are stipulated into several laws and regulations which are of course separate and only describe the concept of data privacy protection in general and its rules are only contained in the Minister of Communication and Information Republic of Indonesia Regulation Number 20 of 2016.

2. European Union already has ideas and regulations in advance regarding the protection of data privacy. This happens because European countries are dominated by developed countries that have long been developing technology in various fields such as aviation technology, weapons, and information technology. The law regarding data privacy protection also goes hand in hand with technological advances, especially in the field of communication and information technology. European Council realizes that a person's data is very basic and important for human rights.

B. Suggestion

With the results of the writing as explained above, would like to give an advice to Indonesia to immediately provide legislation that has permanent and binding legal force that can provide full protection against the protection of data privacy from Indonesian citizens. In addition, these regulations must also have strict and hard sanctions and anyone can get sanctions if they are proven to violate these regulations. This is inseparable from the importance of one's data which has now become a very valuable thing and has a very high economic value. It also aims to prevent data leakage and also other cybercrime. The author hopes that the Draft Bill on Personal Data Protection can be passed immediately so that Indonesia immediately has data protection regulations in its electronic system, especially in Artificial Intelligence, given the many cases of theft and data leakage that are rife today.

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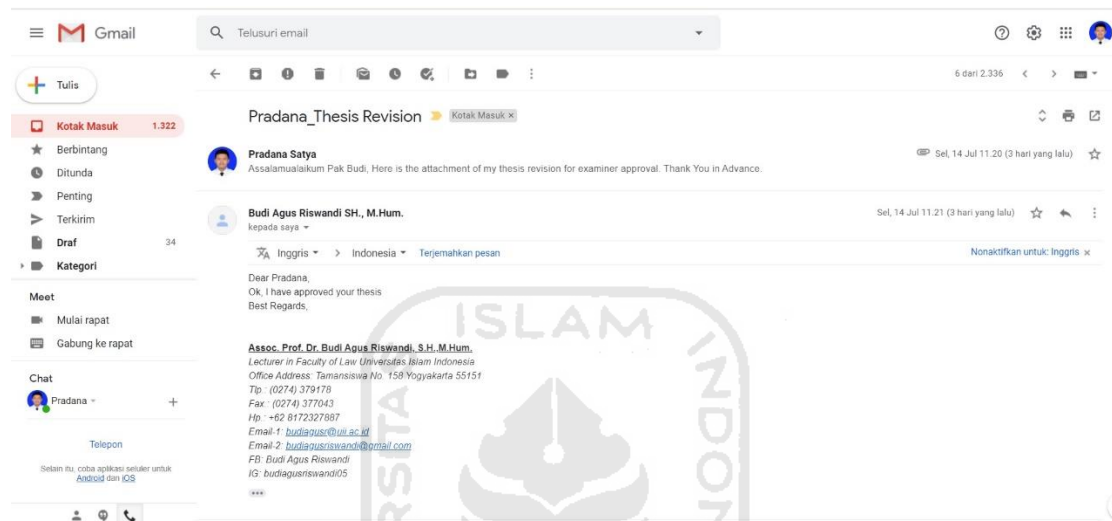
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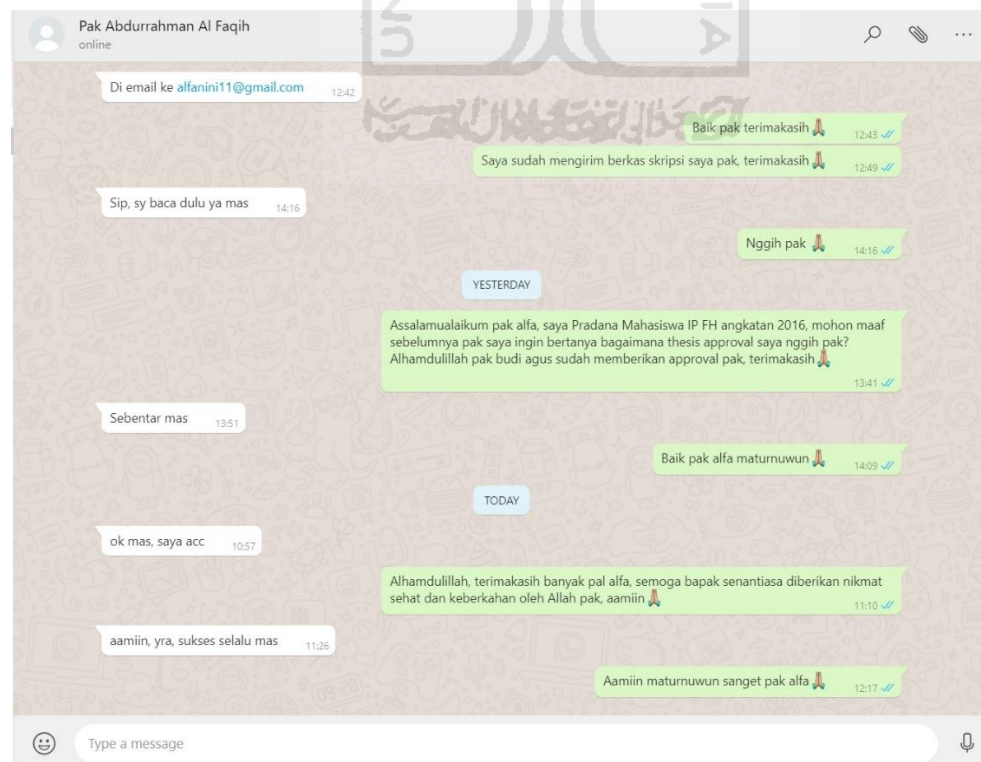
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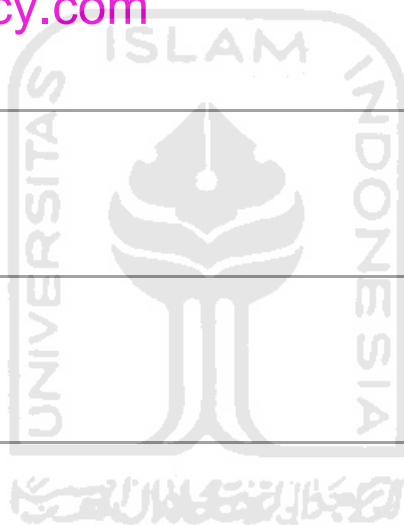
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