

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

Digital Security Protection in The Era Society 5.0 and its Implementation in Indonesia

Alamsyah Ali ¹⁾, Bambang Tri Bawono ²⁾ & Sri Endah Wahyuningsih ³⁾

¹⁾ Faculty of Law, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: alamsyahali15@gmail.com

²⁾ Faculty of Law, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: bambang@unissula.ac.id

³⁾ Faculty of Law, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: endah.w@unissula.ac.id

Abstract. The development of information and communication technology has spurred digital transformation which has changed the industrial landscape, which some time ago was still in the Industrial Revolution 4.0 era, but has now entered the Society 5.0 era. Era Society 5.0 is a concept that implements technology in the Industrial Revolution 4.0 by considering humanities aspects so that it can solve various social problems and create sustainability. However, as technology advances, the level of digital security problems will also increase. For this reason, Indonesia, as a country that has very large internet users, must prepare for the era of society 5.0 as best as possible to maintain digital security from internet use. This research uses normative research methods and social review to review the concept of digital security from the perspective of Society 5.0. There are two aspects dissected in this research, namely the society 5.0 era and government policy aspects.

Keywords: *Digital Security; Government; Policy; Society Era 5.0.*

1. Introduction

The Super Smart Society era (society 5.0) was introduced by the Japanese Government, Shizou Abe, at the World Economic Forum in 2017 and was inaugurated in 2019. The Society 5.0 era

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

was introduced as the Japanese government's response to the reduction in the population of productive age.¹

The era of society 5.0 is a continuation of the industrial era 4.0 which uses advanced technological machines that can reduce the number of workers that must be done by human labor, by applying artificial intelligence. This innovation then gave rise to new problems in the form of a surge in technology which then left the human side behind. Thus, the era of society 5.0 was then introduced to involve the human side in every technological development and reduce the gap between humans regarding economic issues.²

In the industrial era 4.0, the Indonesian government has contributed to this development by creating ten national priority steps. This step was then implemented by creating several policies that were closely related to related ministries and institutions and were also harmonized with applicable regulations.

Indonesia's involvement in the era of modernization is not just a dream. Since the start of the 4.0 era, not only has the government been involved, but also local entrepreneurs have started to use advanced technology to create businesses. The use of this technology has given rise to start-ups such as Gojek and Tokopedia which utilize big data stored on the internet.

Companies' use of storing user data on the internet must be balanced with digital security regulations. After the development of the 4.0 era which then gave rise to the 5.0 era, the problem that is still being faced is regarding the protection of data stored by companies on the internet. Throughout 2020 there were at least seven cases of data leaks that occurred in Indonesia, such as cases of data leaks of Tokopedia users in early May 2020, Kredit Plus in July 2020, and Shop Back in September 2020. In response to these problems, Indonesia has attempted to create regulations to protect data people from digital crime or digital attacks in various ways. One of them is revising Law Number 11 of 2008 concerning Electronic Information and Transactions to become Law Number 19 of 2016 and the establishment of the National Cyber and Crypto Agency (BSSN) on April 13 2021.

¹ Fisipol Ugm, "Society 5.0: Tentang Tawaran Dari Jepang Dan Hal-Hal Yang Harus Kita Perhatikan", terakhir diubah Februari 2019, diakses Februari, 2022, Society 5.0: Tentang Tawaran dari Jepang dan Hal-Hal Yang Harus Kita Perhatikan - Creative HUB Fisipol UGM.

² Wartaekonomi, "Era Cociety 5.0, Apa Bedanya Dengan Industri 4.0?", terakhir diubah November 2020, diakses Februari, 2022, [https://Wartaekonomi.Co.Id/Read313729/Era- Society-50-Apa-Bedanya-Dengan-Industry-40](https://Wartaekonomi.Co.Id/Read313729/Era-Society-50-Apa-Bedanya-Dengan-Industry-40).

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

2. Results and Discussion

2.1. Understanding personal data

According to Article 1 paragraph (29) of Government Regulation Number 71 of 2019 concerning Implementation of Electronic Systems and Transactions (PP PSTE) personal data is data about a person that can be identified individually or combined with other information either directly or indirectly through electronic systems and/ or non-electronic.³

Personal data according to Article 1 paragraph (1) of the Minister of Communication and Information Regulation Number 20 of 2016 (Permenkominfo 2016) is certain individual data that is stored, maintained and maintained as true and protected as confidential. Meanwhile, Article 58 of the Population Administration Law Number 24 of 2013 states that there are 33 types of personal data, including Family Card number, full name, gender, blood type, religion, marital status, and so on. buy online, and so on.⁴

Personal data that is often used includes full name, place of birth, telephone number, home address, email address, and so on. It is very common for people to register personal data to be able to access information so that personal data becomes spread across several websites and it has become normal to register personal data on a website before accessing information or carrying out other activities.

Personal data according to Article 1 paragraph (22) of Law Number 24 of 2013 concerning Population Administration is certain individual data that is stored, maintained and maintained as correct and protected as confidential. The use of personal data in this modern era is commonly used when someone carries out account registration activities to search for information, use applications, carry out sales transactions. At the beginning of 2021, internet users in Indonesia reached 202.6 million people. With so many internet users, there is also a lot of personal data spread around. Internet use clearly must be in line with society's understanding of the importance of protecting personal data so that undesirable things do not happen when using the internet.

³ Jogloabang, "PP 71 Tahun 2019 Tentang Penyelenggaraan Sistem dan Transaksi Elektronik", terakhir diubah Oktober 2019, diakses Februari, 2022, <https://www.jogloabang.com/teknologi/pp-71-2019-penyelenggaraan-sistem-transaksi-elektronik>.

⁴ Yahya Ziqra dkk, "Analisis Hukum General Data Protection Regulation (Gdpr) Terhadap Data Pribadi Konsumen Dalam Melakukan Transaksi Online," *Juris Studia Jurnal Kajian Hukum* Vol. 2, No. 2 (Juni 2021): 330-336.

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

2.2. Protection of Personal Data in Indonesia

The increasing use of the internet so that a lot of personal data is spread has become a problem that is of concern to the government. In order to protect its citizens, the government should make regulations and policies to protect people's personal data. Facing the 5.0 era, there are no new regulations or policies being promoted by the Indonesian Government. Even so, the government continues to insist on updating regulations to protect people's personal data.⁵

Personal data protection is part of personal protection which is clearly stated in Article 28G (1) of the 1945 Constitution of the Republic of Indonesia. Therefore, it is appropriate for the government to create an ideal and well-established regulatory system to protect people's personal data.

In 2016, the government revised Law Number 11 of 2008 concerning Information and Electronic Transactions. It is stated in Article 26 paragraph (1) of Law Number 19 of 2016 that personal data is a part of personal rights and any use of personal data must be carried out based on the consent of the person concerned. Apart from revising the ITE Law, the government is also trying to specifically create regulations regarding the protection of personal data by issuing Minister of Communication and Information Technology Regulation Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems. The basis for making this ministerial regulation is to respect personal data as a person's privacy.⁶

Protection of personal data is also expressly stated in Article 2 of the Population Administration Law that every resident has the right to obtain protection for personal data. It is stated in Article 2 paragraph (1) that personal data protection includes protection of the acquisition, collection, processing, analysis, storage, display of announcements, sending, dissemination and destruction of personal data. Apart from that, in 2020 the government is also trying to create a Draft Law on Personal Data Protection. In this bill, there are at least 12 rights owned by personal data owners. These include requesting information regarding clarity of identity, the basis for legal interests, the purpose of the request and use of personal data, and so on. Matters regulated in the Personal Data Protection Bill include types of personal data, rights of personal data owners, processing of personal data, controllers and processors of personal data, obligations and responsibilities for personal data, transfer of personal data, administrative sanctions, prohibitions on the use of personal data, establishment of guidelines.

⁵ Nurdin Abd Halim, "Penggunaan Media Internet Di Kalangan Remaja Untuk Mengembangkan Pemahaman Keislaman," Jurnal Dakwah RISALAH Vol. 26, No. 3 (2015).

⁶ Naskah Akademik Rancangan Undang-Undang tentang Perlindungan Data Pribadi.

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

behavior of personal data controllers, dispute resolution and procedural law, international cooperation, and the role of government and society, and finally regarding criminal provisions. The main aim of this bill is to protect citizens' rights regarding personal data beyond their wishes or obligations, both from the private sector and the government. This clearly illustrates the government's serious efforts to protect people's personal data.

2.3. Establishment of the National Cyber and Crypto Agency

The progress of the Indonesian economy in the e-commerce industry continues with the increase in registration of personal data before access e-commerce website. In 2017, e-commerce users in Indonesia reached 139 million users, then increased 10.8% to 154.1 million users in 2019. This clearly shows that the government must be prepared to regulate digital data protection in e-commerce in the form of protection. consumer. In addition to updating regulations regarding personal data protection, on April 13 2021, President Joko Widodo signed Presidential Regulation Number 28 of 2021 concerning the National Cyber and Crypto Agency (BSSN). BSSN is based on the aim of realizing national cyber security, protection and sovereignty and increasing national economic growth. In one of its functions, it is said that BSSN provides a protection function for personal data in e-commerce.

BSSN's vision is national cyber security independence and sovereignty towards Indonesia as a Regional Cyber Center. The national cyber security strategy is divided into two, namely internal and external. Internally, the strategy created is to build a capture effect through system development and strength building. Externally, BSSN implements an Omni Directional Policy.

Until now, there has been no real effort by BSSN to protect personal data apart from creating consumer data protection regulations e-commerce. On the other hand, BSSN continues to promote and invite the public through webinars about important things in protecting personal data.

BSSN continues to strive to be more active in maintaining the security of personal data by collaborating and collaborating with institutions related to cyber security and strengthening data sovereignty, and increasing the sense of vigilance for each individual in society when using the internet.

3. Conclusion

Personal data protection in Indonesia to face the 5.0 era is quite diverse. The creation of regulations from the ITE Law to the establishment of a cyber agency is clear enough as proof of

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

the government's serious efforts to protect the personal data of its people. Protection of personal data in Indonesia through the concept is quite ideal considering that there are at least 2 regulations that specifically discuss the protection of personal data, namely Law Number 19 of 2016 concerning Information and Electronic Transactions and Regulation of the Minister of Communication and Information Technology Number 20 of 2016 concerning Data Protection Personality in Electronic Systems. BSSN is expected to immediately take a real role in protecting people's personal data, so that there are no more cases of data breaches in e-commerce. Suggestions: In legal certainty, regulations become a source of law enforcement. However, judging from developments in personal data protection, the government should speed up the ratification of the Bill on Personal Data Protection. Considering the 5.0 era with the concept of inserting a human side in every new technology, facing an increasingly strong digital era, there is no longer any reason for the government to delay the ratification of the Personal Data Protection Bill. Apart from regulations, the government must provide understanding to the public which is also very important in terms of cooperation to create personal data security while using the internet. It is not only government regulations that the public expects to protect personal data, but also the security system of every website in Indonesia. This is because there are still widespread cases of data theft. Apart from that, the government is expected to take a more intimate approach to society so that making regulations is not just a constitutional formality issue but is truly made to protect the people.

4. References

Journals:

Djafar, Wahyudi, "Hukum Perlindungan Data Pribadi di Indonesia: Lanskap, Urgensi dan Kebutuhan Pembaruan," Prosiding Seminar Hukum dalam Era Analisis Big Data, Program Pasca Sarjana Fakultas Hukum UGM pada 26 Agustus 2019.

Halim, Nurdin Abd, "Penggunaan Media Internet Di Kalangan Remaja Untuk Mengembangkan Pemahaman Keislaman." Jurnal Dakwah RISALAH Vol. 26, No. 3 (2015).

Indriyani, Masitoh, Nilam Andaria Kusuma Sari, dan W.P., Unggul Satria, "Perlindungan Privasi dan Data Pribadi Konsumen Daring Pada Online Marketplace System." JUSTITIA JURNAL HUKUM Vol. 1, No. 2 (Oktober 2017): 191-208.

Latumahina, Rosalinda Elsina, "Aspek Hukum Perlindungan Data Pribadi di Dunia Maya." Jurnal GEMA AKTUALITA Vol. 3, No. 2 (Desember 2014): 14-25.

Digital Security Protection in The Era Society 5.0 and its Implementation in Indonesia
(Alamsyah Ali, Bambang Tri Bawono & Sri Endah Wahyuningsih)

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

Niffari, Hanifan, "Perlindungan Data Pribadi Sebagai Bagian dari Hak Asasi Manusia Atas Perlindungan Diri Pribadi (Suatu Tinjauan Komparatif dengan Peraturan Perundang-Undangan di Negara Lain)." Jurnal Yuridis Vol. 7, No. 1 (2020): 105-120.

Nurhidayati, Sugiyah, dan Yuliantari, Kartika, "Pengaturan Perlindungan Data Pribadi dalam Penggunaan Aplikasi Peduli Lindungi." Widya Cipta: Jurnal Sekretari dan Manajemen Vol. 5, No. 1 (Maret 2021): 39-45.

Rahmatullah, Indra, "Pentingnya Perlindungan Data Pribadi Dalam Masa Pandemi Covid-19 di Indonesia." ADALAH: Buletin Hukum & Keadilan Vol. 5, No. 1 (2021): 11-16.

Sinaga, Erlina Maria Christin dan Putri Mery Christian, "Formulasi Perlindungan Data Pribadi dalam Revolusi Industri 4.0." Jurnal Rechts Vinding Media Pembinaan Hukum Nasional Vol. 9, No. 2 (Agustus 2020): 237-256.

Yuniarti, Siti, "Perlindungan Hukum Pribadi di Indonesia." Jurnal BECOSS (Business Economic, Communication, and Social Sciences) Vol. 1, No. 1 (September 2019): 147-154.

Ziqra, Yahya dkk, "Analisis Hukum General Data Protection Regulation (Gdpr) Terhadap Data Pribadi Konsumen Dalam Melakukan Transaksi Online." Juris Studia Jurnal Kajian Hukum Vol. 2, No. 2 (Juni 2021): 330-336.

Books:

Reynaldi, Farah Azzara dkk. Urgensi Perlindungan Data Pribadi dalam Menjamin Hak Privasi: Sebuah Telaah RUU Perlindungan Data Pribadi. Sumedang: Universitas Padjajaran Press, 2020.

Internet:

<https://Wartaekonomi.Co.Id/Read313729/Era-Society-50-Apa-Bedanya-Dengan-Industry-40>, diakses pada Februari 2022.

<https://Www.Jogloabang.Com/Teknologi/Pp-71-2019-Penyelenggaraan-Sistem-Transaksi-Elektronik>, diakses pada Februari 2022.

Society 5.0: Tentang Tawaran dari Jepang dan Hal-Hal Yang Harus Kita Perhatikan - Creative HUB Fisipol UGM, diakses pada Februari 2022.

Digital Security Protection in The Era Society 5.0 and its Implementation in Indonesia
(Alamsyah Ali, Bambang Tri Bawono & Sri Endah Wahyuningsih)



Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

Regulation:

Academic Paper on the Draft Law on Personal Data Protection

Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Electronic Information and Transactions

Law Number 24 of 2013 concerning Amendments to Law Number 23 of 2006 concerning Population Administration

Minister of Communication and Informatics Regulation Number 20 of 2016 concerning Personal Data Protection in Electronic Systems

Presidential Regulation Number 28 of 2021 concerning the Cyber and Crypto Agency State

Digital Security Protection in The Era Society 5.0 and its Implementation in Indonesia
(Alamsyah Ali, Bambang Tri Bawono & Sri Endah Wahyuningsih)