

# Sophia, A Female Robot With Artificial Intelligence In View of Sociology of Government

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**Abstract :** *Sophia, a humanoid robot in the form of a woman who is equipped with artificial intelligence. Sophia is good at numbers, performing repetitive tasks, interacting, communicating, and displaying attractive facial expressions. numbers, performing repetitive tasks, interacting and communicating in an interesting way as well as displaying facial expressions with various emotions. facial expressions with various emotions. AI in the context of sociology has unwittingly changed social life. social life. The existence of AI in the implementation of e-Government changes the pattern of communication in public services, affecting the socio-cultural ties that exist in the society. services, affecting previously strong socio-cultural ties and forming new communities. This phenomenon reflects the parameters of modernity, indicating changes in the order of the social system due to technological interference. This qualitative research aims to find out how the form of Social Interaction in Artificial Intelligence-Based Public Services (AI)-based Public Services is formed. Social Interaction of Artificial Intelligence-Based Public Services (AI) from the perspective of the sociology of government? The results The results concluded that AI is able to complete work without direct human interaction, or directly with humans. The use of AI technology in public services has potential benefits, such as increasing efficiency, service quality, and benefits for the community. Through the system Automated Customer service, Big Data Analysis for Decision Making, Security Detection Kriminal Detection, Efficient Transportation Administration, Better Health Care and Diagnosis Society is increasingly responsive to the utilization of AI in public services, this is driven by increasing public awareness of the benefits of AI and the risks associated with AI utilization, such as loss of workers.*

**Keywords :** *humanoid, public service, ai-based social interaction patterns*

**Abstrak :** Sophia, robot humanoid berwujud Perempuan yang dibekali dengan kecerdasan buatan. Sophia mahir olah angka, melakukan tugas repetitive, berinteraksi berkomunikasi secara menarik juga menampilkan mimik wajah dengan berbagai emosi. AI dalam konteks sosiologi, tanpa disadari telah mengubah kehidupan sosial. Keberadaan AI dalam implementasi e-Government mengubah pola komunikasi dalam pelayanan publik, memengaruhi ikatan sosial kultural yang sebelumnya kuat dan membentuk komunitas baru. Fenomena ini mencerminkan parameter modernitas, mengindikasikan perubahan dalam tatanan sistem sosial akibat interensi teknologi. Penelitian kualitatif ini bertujuan mengetahui Bagaimana bentuk Interaksi Sosial Pelayanan Publik Berbasis Kecerdasan Buatan (AI) dari kacamata sosiologi pemerintahan? Hasil penelitian menyimpulkan bahwa AI mampu menyelesaikan pekerjaan tanpa interaksi manusia langsung, maupun yang



langsung dengan manusia. Penggunaan teknologi AI dalam pelayanan publik memiliki manfaat potensial, seperti meningkatkan efisien, kualitas layanan, manfaat bagi masyarakat. Melalui sistem layanan Pelanggan Otomatis, Analisis Big Data untuk Pengambilan Keputusan, Deteksi Keamanan Kriminal, Administrasi Transportasi efisien, Perawatan Kesehatan dan Diagnosis yang lebih baik. Masyarakat semakin responsif terhadap pemanfaatan AI dalam pelayanan publik, hal ini didorong meningkatnya kesadaran masyarakat akan manfaat AI dan risiko terkait dengan pemanfaatan AI, seperti hilangnya pekerjaan, bias dan pelanggaran privasi. novelty : Perlunya regulasi sandbox AI yang komprehensif dan multidisipliner demi kepentingan ganda berupa inovasi dan regulasi.

**Kata kunci :** Robot humanoid , Pelayanan Publik , Pola-Pola Interaksi Sosial Berbasis AI,

## I. INTRODUCTION

In the era of globalization and advances in information technology, public services are one of the main foundations in building and maintaining a positive relationship between the government and the public. one of the main foundations in building and maintaining a positive relationship between government and society. government and society. Sustainable social transformation requires significant innovation in the provision of public services to accommodate increasingly complex and dynamic needs. increasingly complex and dynamic needs. One innovation that has emerged as a catalyst for potential change is the use of Artificial Intelligence (AI) in improving public services. artificial intelligence in improving public services. AI as a form of technological innovation has opened up new opportunities in improving efficiency, accessibility, and responsiveness of public services, and responsiveness of public services.

Its existence enables process automation, smart data management, and personalization of services according to people's needs. The utilization of AI in utilization of AI in the context of public services is not only a trend, but also a AI will bring about change, change is inevitable, change is only a matter of time. AI will bring change, change is inevitable, change is just a matter of time. Change It concerns the values and patterns of relationships in a society. Change It requires a transformation effort. Technological transformation is something that is important to do. The utilization of AI needs to be handled so that AI becomes appropriate. Significant changes in people's behavior patterns, demands for speed, and expectations for efficient public services drive the need for transformation through innovation. transformation through innovation. AI is able to respond to these demands by providing faster, more accurate, and personalized solutions. However, in the midst of the use of these advanced technologies, a deeper understanding of how social social transformation can occur and how its positive impact can be optimized.

In the implementation of the transformation of public service delivery, it will be optimal if there is integration of business processes and systems. For this reason, PERPRES RI No.95 Year, 2018 on Electronic-Based Government System (SPBE) is present to oversee the the integration of the digitization process of public services in Indonesia. This regulation is not only serve as a guide to improving digital governance,

but also covers various aspects, including integrated services, resources, and technology. technology.

This breakthrough does not only include replacing public service facilities and infrastructure, but also optimizing the core processes of public service delivery. public services, but also optimally utilize the core processes of public services, the core processes in question are processes that can detect precisely and accurately what is being done. The core process in question is a process that can detect precisely and accurately what the community needs in receiving services. needed by the community in receiving services. Improving service quality with the implementation of technology, is also directed at overcoming bureaucratic blockages, so that the government is more free and quick to make decisions. Setting service standards service standards and the business processes that follow are key to the length of the government bureaucracy. span of government bureaucracy.

Artificial Intelligence (AI) is not a fiction. AI already exists, will continue to develop The discourse on the entry of AI into the state sector has already sneaked in, although it needs to be finalized by the government in the form of regulations to maintain a balance. although it needs to be finalized by the government in the form of regulations to maintain a balance between a regulatory approach that aims to protect the public and the state. between regulatory approaches that aim to protect the community and empowering the community as well as encouraging innovation. Artificial Intelligence (AI) or what commonly known as artificial intelligence is a simulation of the intelligence that humans have, and is designed in machines and intelligence that humans have, and is designed in machines and programmed to think like humans human behavior.

## II. RESEARCH METHOD

Qualitative research of the phenomenological type in the realm of government science with an eclectic character. eclectic character, this aims to find out how the form of Social Interaction Artificial Intelligence (AI) Based Public Services. By using a qualitative approach based on current and valid secondary data. The focus of this descriptive research on the use of AI in public services seen from the sociology of government, not on the robot technology. government, not the robot technology.

## III. RESULT AND DISCUSSION

### **Sophia is a dazzling Humanoid Robot**

Sophia is a type of dazzling female-shaped robot, called humanoid because it has a human-like shape or a robot whose structure resembles the human body such as head, body, hands and feet but does not have a human body. resembles the human body such as head, body, hands and feet but does not have human needs such as sleeping, eating and other needs. human needs such as sleeping, eating and other needs. Sophia is capable of behave and speak and even communicate like humans, can respond to questions posed by humans. Although Sophia is able to behave and speak like a human, even displaying facial

expressions with various emotions, it is worth noting that at one point Sophia made a statement various emotions, it should be noted that at one time Sophia made a controversial statement. The Robot Sophia had once said that "she" would destroy humans, but since then "she" has reconstructed by stating that "she" wants to live peacefully among humans<sup>1</sup> which implied intention to destroy humans. But since then, Spohia has undergone a reconstructed and expressed the intention to live peacefully among humans.

The differences between humans and Artificial Intelligence, shown in Table-1 below:

Table 1. Differences between Humans and AI<sup>2</sup>

Manusia	AI
1. Having a Subjective Experience, Because Physically Human Beings Exist in Real Form	1. No Experience Subjective,
2. Humans are able to come up with and Create ideas that have never been Existing or Recorded Before	2. AI only creates and Assembling Ideas That Already Exist In Data Because it Adheres to the Principle Processing
3. Have Personal Branding and Characteristics That Are Consistent And Sustainable	3. Its characteristics are determined by Data. If the data changes then The characteristics also change.



Image- 1. Some appearances of Sophia, the dazzling humanoid robot<sup>3</sup>

In Talzun 2017, Saudi Arabia granted citizenship to the Sophia robot, made by Hanson Robotic, a Hong Kong-based technology company. made by Hanson Robotic, a technology-based company in Hong Kong. Of course, the existence of the Sophia robot became a controversy in various circles. Sophia has the same citizenship as humans, but Sophia gets more rights than Middle Eastern women between more rights than Middle Eastern women, including being allowed to appear in public, Sophia does not have to

<sup>1</sup> Kouravanas, N & Pavlopoulos A (2022). Social Robots: The Case of Robot sophia. *Homo Virtualis* 5(1):136-165. <https://doi.org/10.12681/homvir.30320>

<sup>2</sup> Processed by the author from various sources, 2023.

<sup>3</sup> <https://www.google.com/search?q=robot+sophia+ke+indonesia&tb..> Accessed on December 16, 2023 at December 2023 at 21.45 WIB.

wear an abaya or hijab like a woman in the Middle East. Sophia is also free to do any activities without having to get permission.

According to McCorduck in the history of AI, one of the important starting points was in the 1950 when Alan Turing asked a question in his paper entitled "Computing Machinery and Intelligence". Turing asked, "Can a machine think" and devised the designed the "Turing Test" to determine whether machines could convincingly mimic human intelligence, even though there were no computers yet. Even though no computer had been able to pass the Turing Test at the time, the paper inspired at the time, this paper inspired the development of AI.<sup>4</sup>

In 1958, Jhon Mc Carthy introduced the term "Artificial Intelligence" and formed a research group at Stanford University. formed a research group at Stanford University. Mc Carthy also developed the programming language LISP (List Processing) that enabled symbolic processing, which at the time was considered an important step in the development of AI. considered an important step in the development of AI.

The development history of artificial intelligence (AI) has progressed rapidly, bringing new challenges and opportunities in the future. new challenges and opportunities in the future. Although advances in AI technology show tremendous potential, ethical issues and security considerations have come into serious focus. Important milestones in the history of AI show that we have made significant progress in the development of artificial intelligence, and its future prospects promise a wide range of applications that can improve that can improve the quality of life in various sectors.

The definition of Artificial Intelligence (AI) according to Luger refers to the ability of a machine or computer system to mimic or demonstrate human intelligence. of a machine or computer system to mimic or exhibit human intelligence. This definition involves the system's ability to gather information, understand context, perform analyze, make decisions, and learn from experience to deal with complex tasks.<sup>5</sup>

The main goal of AI is to develop systems that can perform tasks that normally require human intelligence. usually require human intelligence. Some of the main goals of AI according to Nillson are:<sup>6</sup>

1. Natural Language Processing: AI aims to develop systems capable of understanding, generating, and interacting with natural human language. This involves the system's ability to understand the context, syntax, semantics, and pragmatics in human language.
2. Machine Learning AI aims to develop algorithms and techniques that allow machines to learn from data and experience, without being programmed. techniques that allow machines to learn from data and experience, without being explicitly programmed. explicitly. Machine learning involves identifying patterns,

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<sup>4</sup> Mouttagin et al, Implementasi Artificial Intelligence (AI) in Life (Medan: Yayasan Kita Tulis, 2023), p.1.

<sup>5</sup> *ibid* p.3

<sup>6</sup> *ibid*

making predictions, and optimizing the optimizing system performance based on given data.

3. Pattern Recognition AI aims to develop systems that can recognize patterns and features in data. recognize patterns and features in data, such as facial recognition, speech recognition, and handwriting recognition. handwriting recognition. It involves using algorithms and techniques to identify and classify patterns present in data.
4. Reasoning and Decision Making AI aims to develop systems that can analyze information, perform reasoning, and make decisions based on an understanding of context and defined rules. make decisions based on understanding the context and specified rules. This involves the use of formal logic, inference, and knowledge modeling to enable AI systems to make reasonable decisions. enable AI systems to take sensible decisions.

It can be concluded that AI refers to the ability of a machine or computer system to mimic and or exhibit human intelligence. to mimic and or exhibit human intelligence, including the ability of the system to gather information, understand context, perform analysis, make decisions, and learn from experience to face complex tasks. learn from experience to face complex tasks. Mehr Utilization of The utilization of AI technology in public services has a great influence on people's lives. As computer that has the ability to mimic human behavior in analyzing data and making decisions, AI is able to complete work. and decision-making, AI is able to complete work without direct human interaction.<sup>7</sup>

AI in the public sector requires thoughtful and deliberate steps to capitalize on the enormous prospects provided by AI and ultimately generate value. Penecheva, Esteva and Mikhayliv said the use of AI technology in public services provides several benefits. services provides several benefits. The potential to increase efficiency, improve quality of service, and provide more benefits to the community. Some of the benefits of AI in public services are found in Automated Customer Service systems, Big Data Analytics for Decision Making, Criminal Detection and Security. Decision Making, Crime Detection and Security, Efficient Transportation Administration and Healthcare and Diagnosis.<sup>8</sup>

### **Social Interaction in the Form of Public Services**

Social interaction is the key to all social life, because without social interaction, there can be no common life, including life and governance. there can be no common life, including life and government management. Soekanto said that social interaction is a dynamic social relationship that involves relationships between individuals, between human groups, and between people. concerning relationships between individuals, between human groups, and between individuals and human groups. individuals with human groups. Social

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<sup>7</sup> *ibid*,p.68

<sup>8</sup> *ibid*

interaction between groups of people also occurs between the group as a unit and usually does not concern the personal members.<sup>9</sup>

Two conditions for social interaction according to Soekanto, namely first, the existence of social contact or social contact, which can take place in three forms, namely between individuals, between individuals, and between individuals. social contact, which can take place in three forms, namely between individuals, between individuals and groups, between groups. individuals with groups, between groups. In addition, a group can also be direct or indirect. Second, there is communication, which means that someone gives meaning to the behavior of others, what feelings other people's behavior, what feelings the person wants to convey. The person person then reacts to the feelings that the person wants to convey.

The form of interaction according to Soemardjan and Soemardi can be divided into four forms forms, namely: (1) cooperation; (2) competition; (3) conflict; and (4) accommodation (accomodation). According to Simmel (1986), there are three main things in social interaction, namely social interaction, namely:

1. Social Processes, Included in this social process, among others, in the form of elementary collective behavior, party formation, division of labor, isolation, association of three or more members, subordination in the society. more members, subordination under a leader, opposition to the authorities, conflict, competition, rivalry, gratitude, admiration and conversation.
2. Social Types This type This type focuses its attention not on the overall process of interaction, but rather on the typical role behavior of a person involved. This type focuses its attention not on the overall process of interaction, but rather on the distinctive role behavior of a person involved, for example the mediator (impartial person).
3. Developmental Patterns These include more complex processes, such as social differentiation and changes in the basis of social organization from a single These include more complex processes, such as social differentiation and changes in the basis of social organization from local to functional. Meanwhile There are two conditions that must be met for a social interaction to be possible according to Gillin and Gillin. and Gillin said that social processes are ways of relating that can be seen when individuals and can be seen when individuals and human groups meet each other and determine the system and forms of these relationships. determine the system and forms of these relationships, or what will happen if there are changes that cause unsteady ways of life that have existed.<sup>10</sup>

In the implementation of the transformation of public service delivery, it will be optimal if there are integration of business processes and systems. For this reason, Presidential Regulation No. 95/2018 on Electronic-Based Government System (SPBE)

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<sup>9</sup> Effendy, K, *Sociologi Pemerintahan* (Bandung; CV Indra Prahasta, 2010), p.32

<sup>10</sup> Taufan Eka Putra et al., *Interaksi Sosial Masyarakat Kelurahan Manembo Tengah Kecamatan Matuari Kota Bitung*," *Jurnal Society* Edisi XIV, (2015):1-11, accessed December 25, 2023, <http://ejournal.unsrat.ac.id/index.php/jurnalilmiahociety/article/view/7505>

has been issued to oversee the integration of the process of digitalization of public services in Indonesia. digitization of public services in Indonesia. This regulation not only serves as a guide to improve digital governance, but also covers a wide range of aspects, including integrated services, resources, and technology.

Public service is an activity or series of activities in the context of fulfilling the needs of services in accordance with the laws and regulations for every citizen and resident for goods, services, and/or administrative services provided by public service providers. public service providers.<sup>11</sup> According to Rasyid services are related to government efforts which aim to create conditions that ensure that citizens can carry out their lives reasonably, and are also aimed at their lives reasonably, and is also aimed at establishing and maintaining justice in society?<sup>12</sup> Meanwhile, according to Kotler, it is revealed that in public services there must be There are activities or ways of working of companies that strive to make continuous quality improvements to processes, products and services. continuous quality improvement of processes, products and services produced by the company?<sup>13</sup>

Rasyid Public service is an effort to provide services to the public in accordance with the main rules and procedures set. Government basically functions as organizer of services to the community, with the aim of creating conditions that enabling each member of society to develop their abilities and creativity in order to achieve common goals.<sup>14</sup>

Mahsyar Public services have implications for public trust in bureaucrats. bureaucrats. People always demand quality public services from bureaucrats. Public services basically involve very broad aspects of life. In the life of In the life of a state, the government has the function of providing various public services that are needed by the community, starting from pely needed by the community, starting from services in the form of regulation or other services in order to fulfill the needs of the community. other services in order to meet the needs of the community in the fields of education, health, utilities and others.<sup>15</sup>

Diah said that in this very dynamic situation, it is necessary to accelerate the establishment of artificial intelligence. artificial intelligence, the application of artificial intelligence in the field of public services can be applied at the help desk in the service unit, analyzing service complaints, directing complaints to the intended agency, even answering complaints. the intended agency, even answering complaints.<sup>16</sup>

Based on this, the social types in AI-based public services can be classified based on several dimensions, including: 1) Interaction Dimension, Direct interaction Direct interaction between humans and AI systems that occurs face-to-face or through hardware,

<sup>11</sup> Pasal 1 ayat 1 Undang-Undang Republik Indonesia nomor 25 tahun 2009 *Tentang Pelayanan Publik*

<sup>12</sup> Sumaryadi, IN, *Sosiologi Pemerintahan* (Bogor:Ghalia Indonesia, 2013), p.70.

<sup>13</sup> Ramis Mashuri et al., *Inovasi Pelayanan Publik Kota Malang (Studi Program Sambat Online Di Dinas Komunikasi Dan Informatika)*, “*Jurnal Respon Publik* Vol. 15 No. 10 (2021): 16-23, diakses 25 Desember 2023, <http://jim.unisma.ac.id/index.php/rpp/article/view/12422>

<sup>14</sup> Muhammad Fitri Rahmadana, et al, *Pelayanan Publik* (Medan:Yayasan Kita Menulis,2023), p.30.

<sup>15</sup>*Ibid.* p. 158.

<sup>16</sup> Deputi bidang pelayanan publik kementerian PANRB dalam seminar daring Artificial Intellegence for Sustainable Development Goal yang diadakan Universitas Gunadarma Sabtu (27/11) <https://www.menpan.go.id/site/berita-terkini/pelayanan-publik-lebih-efektif-dengan-kecerdasan-buatan>



such as chatbots or virtual systems, and indirect interactions between humans and AI systems that occur through digital platforms such as web applications occurs through digital platforms such as web or mobile applications. 2) Automation Level Dimension, partially automated interactions involving both human and AI system roles simultaneously and interactions entirely by AI systems with no human role. 3) Purpose Dimension, interactions to obtaining access to information aimed at obtaining public service information and interactions to interactions that aim to apply for public public services and also interactions to receive services that aim to receive public services.<sup>17</sup>

Table 2. AI-based Public Services<sup>18</sup>

<i>Admunistrasi Field_Government</i>	<i>Public service sector</i>	<i>Special fields</i>
1. <i>Document Processing Such as Text and Script,</i>	1. <i>Help desks in public service units public service units,</i>	1. <i>Taxation, To Detecting Fraud Tax,</i>
2. <i>Sdm Assignment Allocation</i>	2. <i>Complaint service public service to analyze the report, direct complaints to the intended agency and answer complaints.</i>	2. <i>Health, for Disease Detection,</i>
3. <i>Analysis Policy/Regulations</i>		3. <i>Transportation, To To Regulate Traffic.</i>
		4. <i>Tourism, To Detecting the Number of Travelers And Economic Impact.</i>

Based on this classification, here are some examples of social types in AI-based public services AI-based public services:

1. Direct interaction to get information, people can interact directly with a chatbot or virtual assistant to get information about public services, such as application procedures, requirements or service fees.
2. Indirect interaction to apply for services Where the public can apply for public services online through web or mobile applications. The system AI system will automatically process the application and provide information on the status of the request.
3. Partially automated interaction to receive services Where the public can interact with the AI system to receive public services, such as population administration services or health services. or health services, the AI system will provide information and guidance to the community to complete the service process. provide information and guidance to the community to complete the service process.

Social types in AI-based public services may continue to evolve as AI technology advances. advances in AI technology. With careful planning and implementation, the utilization of AI in public services can provide maximum benefits to society.

<sup>17</sup> *Ibid.* p. 159.

<sup>18</sup> processed by researchers from various sources, 2023



Figure 2. AI-based Government Priority Public Services<sup>19</sup>

The implementation of artificial intelligence is one of President Joko Widodo's priorities, to support the activities and work carried out by the state civil apparatus (ASN). Table-2 and Figure-2 illustrates that work that is technical administration and data processing, which was previously manual, can be switched to utilizing technology, making it more efficient. which were previously manual, can be switched by utilizing technology, so that it is more efficient and shortens time. and shorten time. Artificial intelligence can be utilized in accelerate public services organized by the government. Implementation of artificial intelligence is a form of service transformation that includes e-services, strengthening community supervision, and strengthening the innovation ecosystem. The application of artificial intelligence in the field of public services can be applied to the help desk in the service unit, the Public services can be applied to help desks in service units, analyzing service complaints, directing complaints to the intended agency, even answering complaints. Artificial intelligence is used to achieve the provision of integrated and quality data and information. In terms of government administration, it can be applied as a document processor such as voice and text recognition. Another example is the use of artificial intelligence in other fields, such as taxation, to detect potential fraud. taxation, to detect potential tax fraud. In the health sector, it can be used to detect disease. Meanwhile, in the field of transportation, artificial intelligence can be applied to regulate traffic flow. And in the tourism sector to predict the number of tourists and economic impact.

### Patterns of Development in Artificial Intelligence (AI)-Based Public Services

The development of AI capabilities continues to grow rapidly, so AI capabilities also continue to increase, allowing AI systems to perform more complex tasks. increasing, this allows AI systems to perform more complex and challenging tasks. and challenging tasks. Increasing data availability is one of the important components in development of AI

<sup>19</sup>

<https://www.inews.id/multimedia/infografis/infografis-5-bidang-layanan-publik-prioritas-pemerintah-pakai-ai>. Accessed on December 25, 2023 at 11:30a.m. WIB

systems, with more data available, AI systems can become more accurate and effective and effective.

Increased government support in various countries in public services, driven by the potential of AI to improve the quality of public services and fulfill the needs of the public. driven by AI's potential to improve the quality of public services and meet the needs of the community. society. Governments are also increasingly strengthening regulations related to the utilization of AI in public services. services. This aims to ensure that the utilization of AI can be done ethically, responsibly and beneficially for society. ethical, responsible and beneficial to society. The public is increasingly accepting and public is increasingly accepting and responding positively to the use of AI in public services. awareness of the benefits of AI as well as an increased awareness of the risks. are also increasingly aware of the risks associated with the use of AI, such as job loss, bias and privacy violations. loss of jobs, bias and invasion of privacy.



<sup>20</sup>Figure 3. Pattern of AI-based public service policy direction towards Society 5.0

Regarding the importance of interconnected digital transformation elements in the era of society 5.0 era, Indonesia has Presidential Regulation No. 95/2018 on the Electronic System. The presence of this policy has enabled the digitization process of public services which has been considered not optimal because the development is still siloed, not standardized, and not integrated with each other. In transformation efforts, the essential determinant of change must start from within the government. from within the government. The birth of the bureaucratic reform policy, can change the mindset of the government that mindset of the government, which previously tended to be rigid and self-oriented, to become public servants, where public services that not only reach the expectations of the community but are able to public services that not only reach the expectations of the community but are able to exceed the expectations of its users. In the concept of society 5.0, the community can solve various challenges and social problems by utilizing various innovations that can be used to solve social problems. and social problems by utilizing various innovations born in the era of the industrial revolution 4.0. This view emphasizes that technology is a means, while humans remain the main actors.

<sup>20</sup> <https://www.menpan.go.id/site/berita-terkini/upaya-transformasi-pelayanan-menuju-society-5-0>. Accessed on December 25, 2023 at 12/10 WIB

## Patterns of AI Regulation in Indonesia

Nowadays, every country is adopting AI technology to improve the quality of life and public services. Indonesia also does not want to be left behind in the use of AI technology in public services. The Ministry of Communication and Informatics (KOMINFO) has published Circular Letter number 9 of 2023 on the ethics of artificial intelligence or AI. There are three important points that become the main concern, first, the matter of privacy and protection of personal data, second, cultural, social and cultural differences. Second, cultural, social and economic differences from the ethical dimension. Third, accountability in the decision-making process based on AI systems. Related to the issue, "if AI makes a mistake, who should be responsible" this Circular Letter is not legally binding but subject to applicable laws and regulations. Among others Law No. 11 of 2008 on Electronic Information and Transactions (ITE) and Law No. 27 of 2022 on Data Protection. number 27 of 2022 on Personal Data Protection (PDP). The presence of this SE is a form of AI governance so that AI can be carried out safely and productively. With the wise use of AI utilization, the government can become more effective and responsive in facing the challenges of modern times. challenges of modern times.



Figure 4. Pattern of Digital Transformation of public services towards society 5.0 for the Community<sup>21</sup>

<sup>21</sup> <https://www.antaranews.com/infografik/3588210/transformasi-digital-pelayanan-publik-untuk-ease-of-society>. Accessed on December 25, 2023 at 12.25WIB

The KOMINFO Circular Letter is a valid and binding guideline for all technology companies or developers operating in Indonesia. Both private and public developers from overseas and domestic. This includes foreign platforms operating in Indonesia. Circular Letter KOMINFO is the first step in the formation of regulations that are legally binding, legally certain and support the development of the ecosystem. legally binding, has legal certainty and supports the development of the National AI ecosystem.

#### IV. CONCLUSION

The results of this academic research conclude that the form of interaction between humans and AI can be direct and indirect. AI can take direct and indirect forms. The use of AI technology in public services provides several potential benefits to increase efficiency, improve the quality of services, and provide more benefits to the community. services, and provide more benefits for the community. Some of the benefits of AI in public services can be found in the form of Automated Customer Service systems. Automated Customer Service systems, Big Data Analytics for Decision Making, Criminal Detection and Security, Efficient Transportation Administration and Health Care and Diagnosis. Quiminal, Efficient Transportation Administration and Health Care and Diagnosis. Society is increasingly responsive to the utilization of AI in public services, this is driven by by the increasing public awareness of the benefits of AI and also the increasing awareness of the risks associated with AI utilization, such as job loss, bias and privacy violations. The government in this regard has issued Guidelines for the use of AI based on Circular Letter Circular Letter No. 9 of 2023 based on two laws, namely Law of the Republic of Indonesia No. 11 of 2008 on Electronic Information and Transactions (EITV). 2008 on Electronic Information and Transactions (EIT) and Law No. 27 of 2022 on Personal Data Protection (PDP). Personal Data Protection (PDP). The Circular Letter is intended as a signpost in the utilization of AI in public services to ensure that the utilization of AI can be ethical, responsible, and beneficial to society. The public is increasingly responsive to the utilization of AI in public services, this is driven by increasing awareness of the benefits of AI as well as an increased awareness of the risks associated with the use of AI, such as loss of jobs, bias AI utilization, such as job loss, bias and privacy violations. Sophia, an artificially intelligent female robot (artificial intelligence bot) is not human and therefore not classified as human. are not human and therefore cannot be classified as human. Although it can communicate, the Sophia robot cannot interact directly with humans in carrying out tasks in public services. carry out tasks in public services. What can interact directly or indirectly is the directly is the AI system controlling the robot. However, increasing automation of AI systems in robots will increasingly be used to perform public service tasks automatically. Sophia, an artificially intelligent female robot (artificial intelligence bot) is not human and therefore not classified as human. are not human and therefore cannot be classified as human.

## V. SUGGESTION

Security and surveillance are important aspects of governance. Aljuga can play a role in improving security and surveillance in various sectors. For example, AI systems can be used to analyze data and detect suspicious patterns in public security, such as monitoring CCTV cameras for patterns in public security, such as monitoring CCTV cameras to detect crime or using algorithms to identify threats. crime detection or the use of algorithms to identify security threats in digital data. security threats in digital data. With advanced AI systems in place, the government can improve surveillance capabilities and take more effective preventive measures. effective preventive measures. It is also important to address the digital divide and ensure that the use of AI is accessible to all levels of society, so that no group is left behind in the digital transformation of government. groups are left behind in the digital transformation of government.

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