

# Social Relations of Village Communities to the Development of Artificial Intelligence

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**Abstract:** The rapid development of digital technology cannot be avoided. Because digital technology develops according to the times. This development also has an impact on rural communities. However, this development cannot be said to be successful. This is because access to digital technology is still massive among rural communities. Where local village communities find it very difficult to accept developments in digital technology. In addition, rapidly developing artificial intelligence is making rural communities increasingly left behind. So this research aims to see the extent of the impact of artificial intelligence on village communities. Apart from that, how do village communities respond to technology, especially artificial intelligence? The findings of this research are on efforts to protect consumer data against artificial intelligence. Where social relations have an important role to play in protecting personal data. This research uses a literature study method by compiling from writings related to the topic to be discussed. Data collection techniques were obtained from library sources in the form of books, scientific journals and relevant proceedings. Next, the researcher examines the focus of literature observations by looking for relevant data according to the topic of discussion. Then present it in detail through primary and secondary literature sources related to the topic discussed. Thus, it is hoped that the results of this research can provide an understanding of digital technology. Village community concerns regarding the development of artificial intelligence must be actively addressed. Apart from maintaining personal safety, this understanding effort can have an impact on the social roles of fellow villagers.

**Keywords:** Artificial Intelligence, Social Relations, Technology, Village Community.

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## Introduction

Indonesia has various abundant natural resources. The geographical area in Indonesia makes natural flora and fauna abundant. With so many abundant natural products, many people take advantage of this wealth. One of them is to make it a source of life for them. Apart from that, the abundant natural wealth means that the majority of village communities manage these natural products. This is because village communities are closely related to the nature around them. So it is not surprising that village communities depend on sources of life that exist in nature. Apart from that, the formation of village communities is the result of an association of people from one area and becoming a village or village (Manullang, 2021). However, before a village is formed, it requires exploring the area

where you want to live. Is the place suitable to live in or not. After the community finds a suitable area, they will clean the area to build a *gubuk* (makeshift house) for them to live in. They do this to protect themselves from the dangers around them.

Village society today is different from village society in the past. The rapid presence of technology means that village communities must be able to adapt to developments with the times. This is because technology develops along with the times. Where technology has developed so rapidly and cannot be separated from society. So that the development of the times shifts civilizations throughout the world. Technological developments in the context of society occur almost in aspects of everyday life. Technological convergence has reduced people's traditional habits and replaced

them with modern habits based on information technology (Herdiana, 2019). For example, current communication tools can be done remotely. Advances such as handheld devices such as telephones or cellphones can be enjoyed by people today. Ease of digital access means village communities can quickly access information digitally. Apart from that, this change has a big impact on the values of societal transformation. Especially societies that are rich in culture and customs like Indonesia (Wahyudi and Sukmasari, 2018). However, there are impacts from the use of digital technology itself.

The impact of digital technology certainly does not only have a positive impact. However, there are many negative impacts resulting from technology itself. Apart from that, artificial intelligence has begun to enter technological development. Where artificial intelligence has made digital access easier that we have been using. However, various communities are worried about the impact of artificial intelligence itself. Other countries are creating laws to control the negative impacts of artificial intelligence. Some organizations also prohibit artificial intelligence-based features such as facial matching to avoid dangerous risks (Rahardja, 2022). There is a lot of anticipation brought about by increasingly rampant artificial intelligence. Where this very rapid development can be competitive from various aspects. Apart from that, the social impact of artificial intelligence also creates a gap in the social relations of society itself. One of them is the inability of artificial intelligence to replace human abilities in tasks that require creativity and empathy (Misnawati, 2023). This relationship can only be carried out by social gatherings of the community. Where artificial intelligence cannot reach that scope.

Apart from that, one of the factors that causes the gap between urban and rural areas is the unequal distribution of infrastructure and the availability of Human Resources (HR) which influences the use of digital systems (Mukhsin, 2020). This makes village communities different from urban communities. The urban scope can be said to be feasible because technological developments in big cities are developing well. However, technology developed in rural areas is

very difficult to implement. This started because the signal was difficult to obtain and access to technology was not yet fully spread in rural areas. Seeing that the strategic geographical location means that mountains are widely spread in various regions in Indonesia. The lack of overhead power lines (SUTET) in various rural areas also affects the information systems in villages. Seeing the difficulty of building power lines in the mountains, it makes it difficult for village communities to access digital signals.

Thus, many changes have occurred in all areas of human life, so when rural communities initially did not discover modern technology, when changes occurred, everything in people's lives experienced changes (Manullang, 2021). Digital technology has brought huge changes to the lives of rural communities. In the past, rural communities were still said to be backward communities because they were lagging behind in information compared to city communities, but now everything has changed. There is no difference at all between rural and urban communities. So the role of village government in overcoming this problem certainly needs to be considered. Where people who can be said to be lagging behind technology need to be given insight into technological developments. Apart from that, adequate facilities also play an important role in supporting technological development in village communities.

The reason and aim of this research was to see the extent of the impact of the development of artificial intelligence on village communities. We can really feel the influence of technological developments today. So it is necessary to develop oneself to learn more about technology so that society is not left behind. Apart from that, how village communities respond to technology is important. Where if the village community's attitude is reluctant to be technologically literate then they will be ready to accept being left behind. Social relations have an important role in technological development. Where it is difficult to spread technology to remote villages, technology has become massive. Apart from that, the social relations of village communities also influence technological development. This can be done by learning about the introduction of technology by

the village government. The role of the village government is also very much needed in responding to this, so that the village community's concerns about the development of artificial intelligence can be actively addressed.

**Materials and Methods**

**Study area**

This research uses a descriptive approach method with literature study. Data collection techniques were obtained from library sources in the form of books, scientific journals and relevant proceedings. The data taken is reduced first before being presented. The researcher did this to provide relevant understanding before presenting it to the reader.

**Data analysis**

The data analysis presented has gone through a data reduction process. Where this research uses a library study method by compiling from writings related to the topic to be discussed. Data collection techniques were obtained from library sources in the form of books, scientific journals and relevant proceedings. The data analysis presented has gone through a data reduction process. Researchers reduce the raw data and put it into a discussion that is appropriate to the topic to be discussed. Next, the researcher examines the focus of literature observations by looking for relevant data according to the topic of discussion. Then present it in detail through primary and secondary literature sources related to the topic discussed. This aims to

produce good and useful scientific writing to support the process for other researchers.

**Results and Discussion**

**Result**

The artificial intelligence work system has several stages that are compiled from predictive data analysis.

This continues until the robot system processes data from machine learning, language processing (NLP), speech, expert systems, planning and optimization, vision, and robotics. The following is a visual image of the artificial intelligence performance system:

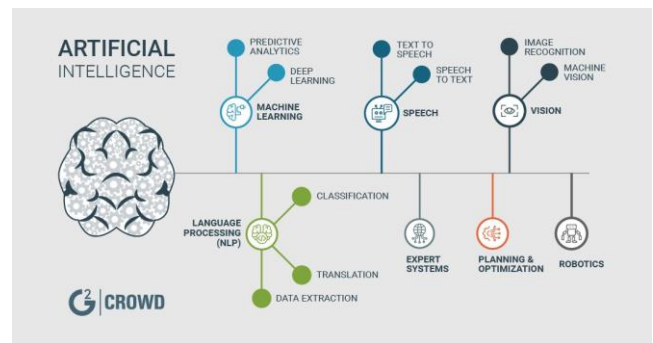


Figure 1. Artificial intelligence working system (Nidurazan, 2018).

In addition to the artificial intelligence work process in the image above, several countries have enacted laws to reduce the impacts arising from the use of personal information through artificial intelligence systems. The following things are done to protect consumer data:

Table 1. Description of Untung Rahardja (2022) on protect consumer data.

Aspect	Description
Transparency	Transparency means algorithmic designers must explain the use of algorithmic decision making. Detailed privacy policies are needed by companies that will set benchmarks for regulators on the handling of company data and hold those companies accountable (Yadav and Bajpai, 2020).
Explaining abilities	Explaining abilities is one of the important features of artificial intelligence systems that allows a person who is influenced by an algorithm's automatic decision to seek to explain abilities or the person affected can approach people for the logic of a decision (Aini, et al, 2019; Dudhat, et al, 2021). Explaining abilities consists of three components which include: a. Identifying algorithmic decisions b. Cancel certain decisions c. Serves as media determination

Risk Assessment	This is another important component of any artificial intelligence system that consists of automated decisions that involve high risks for humans. Regulations require that any automated decision-making be preceded by an assessment of its risk to the individual. There are also other actions where any bias in the algorithm or data design as well as the potential impact on individuals must be anticipated in advance (MacCarthy, 2019).
Audit	Audit ensures that whether a company complies with its privacy policy program or not. Program audits can be carried out by the company itself, which is also called a self-audit, or can be done through a third party to do the same thing. Algorithmic decision-making audits help match forward-looking with hindsight; However, auditing is still in its early stages and is difficult to carry out due to several reasons and is still in the developing stage (Lee, et al, 2019).

## Discussion

### 1. Personal Data Security against Artificial Intelligence Technology

Artificial intelligence is a term to refer to the simulation of human intelligence and thought processes by machines connected to data and information. Machines are made to almost resemble the capacity and intelligence of humans themselves (Pabubung, 2021). Apart from that, with artificial intelligence technology, there are many aspects that can support a person's ease in helping with a job. There are many aspects carried out by this digital machine. Another convenience of artificial intelligence also makes it easier for humans to determine precise and accurate results. So many countries are flocking to fund companies to develop this artificial intelligence technology. However, although artificial intelligence technology has many advantages, there are risks that need to be considered. One of the biggest risks is data security. Data generated by artificial intelligence technology is very sensitive, so it can be used for inappropriate purposes (Misnawati, 2023).

As the findings above show, of the many impacts of artificial intelligence, one of the most important is the security of personal data. The convenience provided by artificial intelligence gives rise to several advantages. However, this convenience can create a boomerang for ourselves. We can encounter this problem if we are careless in using the technology itself. The security of personal data that should only be owned by each individual can be owned by other people if the personal data we access is leaked. So the anticipation that this incident does not occur lies in the security of consumer data. The research found that such data could be safe if detailed privacy

policies were required by companies that would set benchmarks for regulators on how companies handle data and hold companies accountable.

Apart from that, explaining algorithmic decisions from artificial intelligence is an important thing. Where this decision includes three components which include decision identification, decision cancellation, and media determination function (Aini, et al, 2019; Dudhat, et al, 2021). In this case, personal data is something that is sensitive to the development of artificial intelligence. Each person's individual decisions cannot be avoided by aspects of today's technology. Where people inevitably access digital technology. This makes public relations who understand technological developments have to anticipate so that this incident does not occur.

### 2. Impact of Data Leaks

Access to public data is not far from good data management. Adequate infrastructure also affects data security. Therefore, it is very necessary to be aware of data security anticipation. The following are the impacts of personal data leaks according to Marketing APAC (2022) for consumers:

- a. There is a risk of becoming a victim of fraud  
This happens because the personal data we have is used by other people. Leaked data will be used by irresponsible people to commit fraud. Data leaks usually occur because we accidentally access a digital site that does not have an official site. This will result in personal data leakage.
- b. Received a lot of spam  
Spam from unknown numbers is one sign that our personal data has been leaked. Apart from disturbing our personal activities, incoming spam will make our storage full.

c. Misuse of identity

Misuse of identity results in fraud. People we don't know will use fake people's data to deceive other people. Online media is often used by fraudsters to carry out their actions. Apart from that, our identity can also be used as a fraud-based online loan data site.

### 3. How Village Communities Face the Impact of Artificial Intelligence

The complexity of learning about the digital world is experienced by many rural communities, which in fact are communities with lower education than urban communities. When technology changes, the culture experienced by society will also change (Manullang 2021). This culture will gradually experience a shift. Where digital technology is present in everyday life. This of course cannot be avoided. Technological progress and its impact on life is something we cannot avoid. However, we can act wisely for ourselves. However, as members of society, especially as parents, we must take representative and preventive actions, so that as far as possible we can prevent the negative impact of technology on our children, especially teenagers who will become the nation's next golden generation (Wahyudi and Sukmasari, 2018).

With the presence of artificial intelligence that is more effective and efficient and equipped with anti-malware capabilities, it is hoped that it can prevent system errors and minimize the risk of personal data leakage due to human error. Nowadays, the development of artificial intelligence's ability to identify problems is even considered to exceed the ability of human intelligence. Supported by complex calculation abilities (computing power) accompanied by the ability to process large amounts of data (big data), intelligent computer programs have learning abilities that are much higher than humans (Disemadi, 2021). So with this there are several ways how village communities deal with artificial intelligence, including:

- a. The Government's role in protecting public data  
Regulations regarding the security of a person's personal data in Indonesia regarding the use of various services in cyberspace have been regulated in several laws, including Law Number 19 of 2016 concerning Electronic

Information and Transactions (UU ITE), Government Regulation Number 82 of 2016 2012 concerning Implementation of Electronic Systems and Transactions, Minister of Communication and Information Technology Regulation Number 20 of 2016 (Disemadi, 2021). With this, the government can play an active role in protecting population data from leaks.

b. Social ethics of society

Socialization to the public regarding the importance of technology needs to be carried out. This shows that there are still many village people who do not care about current digital technology developments. In fact, the influence of globalization can shift the culture of Indonesia. It cannot be denied that the many technological advances that have entered our country and nation can shift our own local culture. So social awareness becomes an important thing to face the impact of artificial intelligence

Not a few technologies have entered, such as: computers and those which have been equipped so that they can be internet, television, radio, mobile phones and many others. This happens because there is a lot of competition, a lot of technology is developing day by day, especially in developed countries which can produce products every day. Therefore, society's connection to the rapid development of technology needs to be considered. This aims to ensure that Indonesian people do not easily ignore technological developments. This change also has a huge impact on the values that exist in society. So the impact of the shift in rural communities towards technology needs to be addressed carefully. So that the younger generation is not left behind by the times and can compete in a better future.

### Conclusions

From the explanation, it can be concluded that the very rapid development of technology cannot just be avoided. Technological developments, especially artificial intelligence, are very easy and fast to access. Many companies are flocking to

conduct research to achieve increasingly sophisticated technology. The social aspect of technology is also very necessary. Where personal data leaks can occur at any time. You also need to pay attention to the security of personal data due to easy digital access. Where currently we do not know the intentions of each technology user himself. We really feel this negative impact because technology lives hand in hand with everyday human life. Social awareness towards technological developments is also very important to do. Look at the many factors that make technology easy to access. In this way, it is hoped that this research can increase understanding in village communities about the importance of technological development. Where there is very little attention to technology because the importance of technology in rural areas is not as important as in urban communities. However, there is nothing wrong with village communities knowing the importance of technological developments.

**Conflict of Interest:** In publishing this article, the author has no interest at all. This is because the authors only attended the call for papers. Where the author wants the results of his research to be presented in the international arena. Like the International Conference on Religion, Science and Education (ICRSE) event which will be held at UIN Sunan Kalijaga Yogyakarta on November 15, 2023 in a hybrid manner.

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