

Conference Paper

## Increasing Awareness of Healthy Internet Youth in Miru Village, Lamongan Regency Using Internet of Things-Based Blogs

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### ABSTRACT

The occurrence of massive changes in the realm of human life, one of which requires humans to be attached to cyber technology. Today's society, especially the younger generation, cannot be kept away from using the internet. Internet of Things makes Indonesia an opportunity to become one of the countries that can develop this technology. Like a double-edged coin, these opportunities can pose various threats including misuse of personal data, the emergence of the development of cybercrime with the latest tools such as cracking, illegal access, etc. The formulation of the problem that can be put forward by the author is (1) how is the impact of Internet of Things technology on today's young generation (2) how is the effectiveness of Internet of Things technology for the younger generation. The implementation of community service activities related to healthy and intelligent internet education based on the Internet of Things consists of 2 (two) parts, a literature study related to the activity title, namely healthy and intelligent internet education based on the Internet of Things, coordinating with the Miru Village government, Sekaran District, Lamongan Regency. The second stage in the implementation of community service activities was carried out offline on Thursday, July 14, 2022 at the Miru Village Hall which was attended by 20 Miru Village youth groups from several vulnerable groups aged 17-30 years. The result of this research is that cybercrime is closely related to transnational crime. The emergence of new criminal acts as part of the negative impact of Internet of Things technology such as online gender-based sexual violence crimes, theft of personal data and cyberbullying in Indonesia's young generation makes generation Z and millennial generation need education on how to use the internet in a healthy, intelligent and responsible manner.

*Keywords: Understanding, internet, healthy and smart, internet of things*

### Introduction

Today's digital revolution has encouraged the rapid use of technology in various aspects of human life. Based on the results of the 2020 Population Census, the composition of the Indonesian population is primarily dominated by two generations, namely Generation Z and the Millennial generation, which play an essential role in the development of Indonesia today. In terms of composition, the total population distribution of Generation Z is (27.94%), while the millennial generation itself is (25.87%). Generation Z is born after the millennial era with various current technological developments. Meanwhile, what is included in the millennial generation category is the generation marked by the period of birth between the years 1983 to 2001. Suppose you look at the theory put forward by Karl Mannheim, a sociologist from Hungary, in 1923, namely Generation Theory, which explains that the millennial generation or Generation Y is born on a calculation scale between 1980 and 2000 (Putra, 2017).

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The development of technology that brings various developments in various sectors seems to be a basic need of today's generations. It can be proven by the unrestricted use of access to communication technology through the internet network that can eliminate both distance and time with only one platform used, so from this, there will be a lot of reasonable efforts and opportunities that can be put to good use (Purba, 2020). Furthermore, the opportunity for collaboration between digital technology, cyber, and automation proves that the Industry 4.0 Revolution has been released. Industrial revolution 4.0 is part of the expansion of digital technology that has been applied previously, resulting from the 3.0 industrial revolution. One example of the 4.0 industrial revolution is the shift in the needs of companies that initially required large numbers of workers to use technology and machines (Putra, 2017).

Industrial revolution 4.0, as one of the breakthroughs, especially in the industrial world, gave birth to intelligence to help human work, such as the emergence of smart TVs. Advances in information technology have made it easier to exchange data which has also given birth to business innovation and jobs. The impact of the industrial revolution 4.0 can be seen in several sectors, including the economic field; new companies have emerged and created new jobs for the surrounding community. In the political field, the industrial revolution 4.0 gave rise to various understandings, including democracy and modern imperialism. Industrial revolution 4.0 brings industrial progress in urban areas which can lead to inequality in the surrounding community's economic lifestyle, which results in increasing poverty rates. The impact that can be felt directly is the increasing number of people flocking to the city.

In the development of the industrial revolution 4.0, there are at least nine technologies as the main pillars in the development of each industry including Big Data, Augmented Reality, cyber security, artificial intelligence (AI), Additive Manufacturing, System Integration, Cloud computing, Simulation, and Internet of Things (IoT). Internet of Things, here in after referred to as IoT, is a technology created in the development of the industrial revolution 4.0. Internet of Things provides convenience for an object that can transfer existing data over a network without human interaction. In the Internet of Things, there are 4 (four) principal components, namely: 1) sensor devices, 2) connectivity, 3) data processing, and 4) the occurrence of the user interface.

One example of the Internet of Things is Jarvis which can turn off the lights when it is morning, rides that use IoT for bike sharing, and Que, which uses IoT for smart cities and various other applications. The advantages of the Internet of Things include making it easy to transfer data, being accessible wherever users are, facilitating process monitoring, especially in manufacturing, more relevant personalization connections, and automation. The various benefits offered by the Internet of Things technology make it easier to improve the quality of life of its users. Internet of Things technology utilizes the help of sensors, processors, and communication devices from the surrounding environment as well as the required internet connection.

The occurrence of massive changes in the realm of human life, one of which requires humans to be attached to cyber technology. Today's society, especially the younger generation, cannot be kept away from using the internet. Based on data released by the Association of Indonesian Internet Service Providers, referred to as APJII, it is stated that the number of internet network users found at the age of 13 to 18 years is 99.16%. Meanwhile, internet users in the age group between 19 and 34 years were 98.64%. Distance learning, work-from-home online activities (work from home), PPKM, and the impact of the covid-19 pandemic has made internet users, especially generation z and the millennial generation, experience an increase.

The Internet of Things allows Indonesia to become one of the countries that can develop this technology. However, like a double-edged coin, these opportunities can pose various threats, including the misuse of personal data and the emergence of cybercrime with the latest tools such as cracking, illegal access, etc. Cybercrime is closely related to transnational crime. The emergence of new criminal acts as part of the negative impact of the Internet of Things technology, such as online gender-based sexual violence crimes, theft of personal data, and cyberbullying in

Indonesia's young generation, makes generation z and millennials need education on how to use the internet in a healthy, intelligent and responsible manner.

Based on the description of the background above, it can be concluded that the formulation of the problem put forward by the author is (1) how is the impact of the Internet of Things technology on today's young generation. (2) how effective is the Internet of Things technology for the younger generation?

## **Material and Methods**

### ***Preparation for execution***

The implementation of community service activities regarding healthy and intelligent internet education based on the Internet of Things has 2 (two) stages or parts, namely the first stage in preparation and the second stage in the form of service activities. In this first stage, it consists of preparing activities carried out including conducting library research related to the title of the activity, namely healthy and intelligent internet education based on the Internet of Things, coordinating with the Miru Village government, Sekaran District, Lamongan Regency, the next stage is determining the time for the implementation of community service activities. To the community and members of the implementing team and determine and prepare materials to be delivered in community service activities.

The second stage in implementing community service activities was carried out directly on Thursday, July 14, 2022, at the Miru Village Hall, Sekaran District, Lamongan Regency, which 20 Miru Village youth groups attended from several vulnerable groups aged 17-30 years. Activities carried out by the community service team include the delivery of material on the impacts arising from internet use, various types of criminal acts that arise from internet abuse, and legal protection for internet users which also includes a question and answer activities and quizzes at the youth groups of Miru Village, Sekaran District. Lamongan Regency

## **Results and Discussion**

### ***The impact of internet of things technology on the young generation***

The purpose of implementing healthy internet usage is for the common good and the essence of the internet itself, where its use must be adjusted to norms, ethics, and religion. On the other hand, unhealthy internet use causes something wrong, including violating or violating the law and not by the norms, and ethics, that exist in society. Referring to the explanation regarding the use of healthy and unhealthy internet above, it can be concluded that healthy internet is the use of the internet by the community that has positive, productive values by norms, values, and ethics in society. Based on the composition of data released by the Central Statistics Agency in 2021, the number of Indonesian youth currently reaches 64.90 million people, or 23.90% of the total population of Indonesia (Annur, 2022).

According to Bahrain's doctrine of technology with The Internet of Things, it is explained that the Internet of Things functions as a connecting tool for all computing devices contained in a particular technology. Therefore, the use of healthy internet based on age can be maximized and minimize its negative impact. Furthermore, healthy internet use based on age can be provided in a variety of activities, including:

The above age categories can be given education not to easily give out all personal information for any reason, to be selective in making friends or getting acquainted with new people to taking actions that lead to actions that violate decency, such as immoral acts and pornography. In addition, those above the age group should be taught not to trust people they know quickly, and not everyone they meet in the real world or the virtual world is what they expect.

### *12-14 years old*

The above age categories can be given education not to easily give out all personal information for any reason, to be selective in making friends or getting acquainted with new people to taking actions that lead to actions that violate decency, such as immoral acts and pornography. In addition, those above the age group should be taught not to trust people they know quickly, and not everyone they meet in the real world or the virtual world is what they expect.

### *14-17 years old*

The category of teenagers at this age is susceptible and desiring to know many things. In this age category, one of the motivations is to be free from parents doing many activities outside the normal limits. Actions taken by vulnerable adolescents over the age include brawls and free sex. Lack of understanding of the dangers of the irresponsible use of the internet along with the threat of criminality makes this age group able to be given an understanding of healthy, intelligent, and responsible internet use.

The use of technology that has no limits for its users causes several new problems, so the Internet of Things is needed to impact internet users positively. The use of the Internet of Things in the community requires the role of all parties, namely parents, adults, teenagers, and the surrounding environment. There are several ways to have healthy internet, including monitoring internet use which can be monitored by parents, teachers, and those closest to them to be able to access sites according to their age category, providing education about the dangers of internet abuse and sanctions that users can impose if they misuse the use of the internet. Internet without breaking the law in various sectors of life.

### ***Effective use of internet of things technology for the younger generation***

The current young generation is very closely related to the Industrial Revolution 4.0, referred to as the 4th Generation industrial revolution. This industrial revolution focuses on the pattern of applying digitization and automation of various aspects of human life, where the automation system is run concurrently with technological activities.

Use of the internet, which includes criteria against the law, includes Illegal Access, Data Interference; System Interference; Illegal Interception; Misuse of devices; and Intellectual Property Rights offenses. In everyday people's lives, especially the younger generation, making personal data is one of the things that has the potential to give rise to new criminal acts. Besides that, crimes facilitated by internet technology give rise to Online Gender-Based Violence (KGBO), which harms certain genders where women and children are the most detrimental.

During the widespread use of the internet, sophisticated advances in information technology that makes the development and dissemination of information faster, as well as a large number of social media users, have unwittingly created gender-based violence. As a result, not only women but even men can also become victims of sexual violence. Online gender-based violence, commonly referred to as KBGO or KBG, occurs because it has been facilitated by technology; just like direct gender violence, such acts of violence must have men's rea or malicious intent with the intention of harassing victims based on gender or sexuality (Ningrum, 2017).

The forms of online gender-based sexual violence (KGBO) that develop in the community include revenge porn, cyber harassment, malicious distribution, verbal and non-verbal sexual harassment, defamation, hate speech on social media, and exploitation. In addition, several activities can be categorized as KBGO, namely, 1) Violation of privacy, in this case in the form of internet use activities by accessing all data belonging to the victim to spreading the victim's data, photos, and videos of the victim, and other information without the victim's knowledge and consent. 2) Supervision and monitoring, KBGO actors will monitor, pay attention, and monitor and track all activities and positions/weather and whatever the victim is doing using spyware, GPS, or other geo-locators without the victim's consent.

Perpetrators of online gender-based sexual violence (KGB0) do not see who will be the victims, and they will do anything to satisfy them. Therefore, by existing data, online gender-based sexual violence (KGB0) is carried out by those closest to us, such as boyfriends, ex-girlfriends, husbands, brothers, relatives, stepfathers, biological fathers, family, and religious leaders.

From now on, the Ministry of Women's Empowerment and Child Protection, referred to as KemenPPPA, encourages digital literacy in the Indonesian people, especially for women, as a preventive effort to prevent online gender-based violence (KGB0). The increasing internet use should have a positive impact, but new problems accompany it. Therefore, several recommendations need to be made in order to overcome KGB0 in Indonesia, including (1) Strengthening community power, both women and men, adults or children, through understanding knowledge, gender awareness, and digital literacy; (2) Increasing the capacity and quality of law enforcement officers (APH) and service agencies in responding to and tackling KGB0 cases; (3) Implementation of protection for victims of Sexual Violence by applicable regulations; (4) Pass the law regarding the security of personal data (UU PDP).

## Conclusion

The negative impacts of using the internet for the younger generation include the tendency to commit crimes such as committing criminal acts of spreading hoax news, breaking into bank accounts, and stealing other people's data. The use of the internet is against the law. It irresponsibly gives rise to several impacts that the younger generation feels, including online gender-based sexual harassment, cyberbullying, data falsification, cyberterrorism, etc. As the younger generation, especially the millennial generation and generation z, in dealing with Internet Of Things technology, they are wiser in using the internet, including being selective in choosing accessed sites and understanding and reading information on these sites. Healthy and intelligent internet use is an initiation stage for the younger generation to take preventive steps to avoid becoming victims of cybercrime.

The internet can allow perpetrators of online gender-based violence (KGB0) to transmit their actions. There are several strengthening of community power to prevent becoming victims, namely through understanding knowledge, gender awareness, and digital literacy; Increasing the capacity and quality of law enforcement officers (APH) and service agencies in responding to and tackling KGB0 cases; Implementation of protection for victims of sexual violence by applicable regulations.

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## References

- Annur, C. M. (2022). *Ada 204,7 Juta pengguna internet di Indonesia Awal 2022*. Databoks Indonesia. Retrieved from <https://databoks.katadata.co.id/datapublish/2022/03/23/ada-2047-juta-pengguna-internet-di-indonesia-awal-2022>
- Purba, N. (2020). Revolusi industri 4.0 : Peran teknologi dalam eksistensi penguasaan bisnis dan implementasinya. *Jurnal Perilaku dan Strategi Bisnis*, 9(2), 91-98. <https://doi.org/10.26486/jpsb.v9i2.2103>
- Ningrum, M. A. (2017) Peran keluarga dalam menumbuhkan jiwa wirausaha sejak usia dini, *Journal Pendidikan*, 2(1), 29-32 del 1026740/1pv2n1.
- Putra, Y. (2017). Theoretical Review: Teori Perbedaan Generasi. *Jurnal Ilmiah Among Makarti*, 9(18), 129. <http://dx.doi.org/10.52353/ama.v9i2.142>.