THE URGENCY OF UNDERSTANDING DIGITAL LITERACY IN THE FLOW OF DIGITALIZATION OF COMMUNICATION AND INFORMATION

Ali Ridho
UIN Sunan Kalijaga Yogyakarta
ridhoali975@gmail.com

Mohammad Sujud
IAIN Curup
mohammadsujud91@gmail.com

Nurul Izzah S.M. Aksan
UIN Sunan Kalijaga Yogyakarta
nurulizzahsm.aksan@gmail.com

Abstract: *Writing articles using qualitative methods of content analysis. Data collection techniques were carried out through literature research in the form of books, scientific journals, theses, and theses. While the observation process was carried out on digital media and mass media and data were obtained that supported the writing of articles. The researcher analyzes the data that has been obtained from digital media platforms and mass media as well as literature sources in the form of writing and images that become an integral part of the research. The conclusion of this article is that proficiency in digital literacy is an undoubted need in the midst of the serious use of the internet by the Indonesian people, where there are currently 197 million internet users in Indonesia. It is an obligation for the government and policymakers to ensure that every child of the nation can use social media and the internet in the digital era properly and wisely. Let us not be negligent in using the digital space, so as to override moral values and courtesy and ultimately harm materially and non-materially from an economic point of view. We believe that skills in using the internet in this digital era can change and bring progress to the nation, state and society. In this new era, there is no other decision except that Indonesia's people must have sufficient abilities, both in number and level of skills or abilities around digital literacy.*

Keywords: *Literacy, World, Digital, Communication, Information*

INTRODUCTION

The historical background of human development shows that high-level countries were not built solely on the dependence of normal abundance, moreover, very large populations. An extraordinary country separated by a capable, highly human and dynamic culture pushing local areas of the world. Proficiency in this arrangement is no longer just a question of how a country is freed from ignorance as well, and more importantly, how the population of that country has the basic ability to have the choice to compete and coincide with different countries to make the world develop. Overall, countries with higher education culture are directly relative to the country's capacity to cooperate and win contests around the world.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

199

Since old times, education has been a piece of human existence and advancement, from ancient times to current times.[1] In ancient times people just read regular signs to chase and guard themselves. They compose the images and photos of the go-after the cavern dividers. Alongside changes in time, the norm of human existence creates, from nothing perceive writing to bring forth contemplations to make codes with numbers and letters so people are supposed to be animals fit for thinking. That thought at last brought forth a culture. The course of education improvement comes from being perceived as composing that around then involved material as a medium to compose. Material is a paper substitute made of composed from creature skins (like sheep, goats, or jackasses). Material generally utilized for book pages, codexes, or compositions that was utilized by the world's local area around 550 BC.

As soon as 5 AD human communication during the time spent proficiency currently acquainted with the trading of data through pigeon post.[2] over the long haul, what's more, innovative turns of events, for instance, the print machine, paper, cameras, and the improvement of reporting. Papers are notable and turn into a mode for dispersing data. Needs for quick data makes the innovation progress much more quickly.[3] In 1837 the wire was found, and the office was utilized to pass on distant data rapidly, precisely, and recorded. The message contains a blend of codes (Morse code) sent by a gadget called a message. In 1867, Alexander Graham Bell designed the phone; Telephone comes from two words, specifically tele 'far' and telephone 'voice' with the goal that the phone implies a method for correspondence via remote sound.[4] The requirement for exceptionally quick data makes exceptional contest and development in the computerized world. In the mid-1900s, radio and TV turned into the symbols of the world's local area, alongside the improvement and advancement of different sound advancements visual. The method involved with showing data isn't sufficiently adequate for the requirements of society around then.[5] Need instruments to make, plan,

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[1] Peter Seixas, "Progress, Presence and Historical Consciousness: Confronting Past, Present And Future In Postmodern Time," *Paedagogica Historica* 48, no. 6 (December 1, 2012): 859–72, https://doi.org/10.1080/00309230.2012.709524.

[2] Francesca De Petrillo et al., "Evolutionary Origins of Money Categorization and Exchange: An Experimental Investigation in Tufted Capuchin Monkeys (Sapajus Spp.)," *Animal Cognition* 22, no. 2 (2019): 169–86, https://doi.org/10.1007/s10071-018-01233-2.

[3] Vanessa Ratten, "Coronavirus (Covid-19) and Entrepreneurship: Changing Life and Work Landscape," *Journal of Small Business and Entrepreneurship* 32, no. 5 (2020): 503–16, https://doi.org/10.1080/08276331.2020.1790167.

[4] Michael Littman Glen Bull, James Rutter, Joe Garofalo, "Maker Education: A Historical Perspective," 2022, https://doi.org/https://doi.org/10.4324/9781138609877-REE82-1.

[5] L Richter and U H Reimers, "A 5G New Radio-Based Terrestrial Broadcast Mode: System Design and Field Trial," *IEEE Transactions on Broadcasting* 68, no. 2 (2022): 475–86, https://doi.org/10.1109/TBC.2022.3154601.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

200

handle, and put away information and data anticipated, with the goal that in 1941 the PC was concocted.

Mechanical advancements are not just in that frame of mind of PCs (equipment), yet additionally, as quick advancement is likewise occurring on the product side. Toward the start of the utilization of PCs, applications utilized are text-based. Since the creation of the working framework windows, which has easy-to-use openness, has begun to seem supporting applications that can be utilized for advanced media. Workstations that are as of now circling reply to the necessities of individuals on the planet as simplicity of versatility. Right now Indeed, even the utilization of PCs is beginning to be supplanted by the utilization of inward gadgets and the utilization of advanced media which is likewise by the expansion of the organization's incredible web.[6]

As a big country, Indonesia must have the option to develop a culture of skills as important for the basic skills of the 21st century through appropriate training combined, starting from the family, and school, to the local area.[7] The dominance of the six important educations characterized by the World Economic Forum in 2020 turned out to be important for students, but also for guardians and the entire local community. The six essential literacy include education, numeracy, logical ability, science, monetary literacy, and cultural and social literacy.[8]

The median time frame has become one of the main pressing concerns overseeing basic admittance to data information other than through customary media. This should be visible from the presence of New Media which can be a choice in getting different information, moves, and for the purpose of correspondence that can be gotten whenever and anyplace unbounded thinking about that the contraption is associated with a web association.[9] The gigantic expansion in information development has caused an adjustment of the view in the public eye and has moved to information recovery presented by New Media or the Internet and by and large not restricted to information from conventional media.[10] The openness of exceptionally straightforward and fruitful contributions to

[6] New Delhi, "Trinity Media Review" 8, no. 1 (2022).

[7] Pei-Chia Lan, "Contested Skills and Constrained Mobilities: Migrant Carework Skill Regimes in Taiwan and Japan," *Comparative Migration Studies* 10, no. 1 (2022): 37, https://doi.org/10.1186/s40878-022-00311-2.

[8] Preeti Sunderaraman et al., "Assessing Numerical Reasoning Provides Insight into Financial Literacy," *Applied Neuropsychology: Adult* 29, no. 4 (July 4, 2022): 710–17, https://doi.org/10.1080/23279095.2020.1805745.

[9] Zeyu Wang et al., "Business Innovation Based on Artificial Intelligence and Blockchain Technology," *Information Processing & Management* 59, no. 1 (2022): 102759, https://doi.org/https://doi.org/10.1016/j.ipm.2021.102759.

[10] Chunhong Zhang et al., "Environmental Impact of Information and Communication Technology: Unveiling the Role of Education in Developing Countries," *Technological Forecasting and Social Change* 178 (2022): 121570, https://doi.org/https://doi.org/10.1016/j.techfore.2022.121570.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

201

learning, accordingly affecting the manner in which people benefit from looking, acquiring, communicating information, and so on is characteristic of the ascent of New Media.[11]

Number of Internet Users in Indonesia (2018-2022)
(Source: We Are Social, 15 February 2022)

Indonesia is one of the nations with the biggest web client populace on earth. According to the, We Are Social report, there were 204.7 million web clients in the country as of January 2022. That number is a slight increment of 1.03% contrasted with the earlier year. In January 2021, the number of web clients in Indonesia was recorded at 202.6 million.[12] The example of number of web clients in Indonesia has kept on developing throughout the course of recent years. When contrasted with 2018, presently the quantity of public web clients has taken off by 54.25%. In the meantime, the number of web logins in Indonesia came to 73.7% of the all-out populace in mid-2022. Indonesia's outright populace in January 2022 was 277.7 million individuals.[13]

In 2018, the web passage rate in the nation made up just 50% of the complete populace. This suggests that public web section rates have filled quickly lately. Public specialists ought to keep on supporting the improvement of web consideration in all edges of the country. Since, in this modernized period, the web can truly assist with peopling in acquiring information, whether for school, business, or amusement purposes.

Each individual required to comprehend that computerized education is a fundamental thing should have been ready to take part in the cutting-edge world of late. Computerized education is

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[11] Nicky Chang Bi and Ruonan Zhang, "Electronic Word-of-Mouth and Social Media," in *The Emerald Handbook of Computer-Mediated Communication and Social Media*, ed. Jeremy Harris Lipschultz, Karen Freberg, and Regina Luttrell (Emerald Publishing Limited, 2022), 37–50, https://doi.org/10.1108/978-1-80071-597-420221003.

[12] Political Campaign and Financing Reform, "The Future of Indonesian Patronage Democracy :" 11, no. 4 (2022): 1278–90, https://doi.org/10.31289/perspektif.v11i4.7198.

[13] Teddy Lesmana, "The Role of Islamic Micro Financial Cooperatives (Baitul Maal Wat Tamwil) in Local Economic Development : Case Study of Three Provinces in Indonesia," *Journal of Islamic and Economics* 2, no. 1 (2008): 57–71, https://doi.org/10.15294/lsr.v2i1.53479.

pretty much as significant as perusing, composing, math, and different disciplines. The age that grew up with access who are not restricted in computerized innovation has an outlook not the same as the past age. Everybody ought to can be answerable for how to utilize innovation to collaborate with the general climate. Computerized innovation permits individuals to interface and speaks with loved ones in regular daily existence. Sadly, the virtual world as of now progressively loaded up with content that scents phony news, and can't stand discourse, also, radicalism, and even deceitful practices.[14] Content presence The negatives that harm the ongoing advanced environment must be countered by building familiarity with every person.

Being carefully educated implies having the option to process different data, can grasp messages, and discuss actually with others in different structures. For this situation, the structure being referred to counting making, teaming up, conveying, and working agree with moral guidelines and comprehending when and how innovation should be utilized to be compelling in accomplishing the targets. Counting additionally mindfulness and decisive reasoning of different positive effects what's more, negative might happen because of the utilization of innovation in daily existence. Animating people to create some distance from customers' latent data turns into a functioning maker, both separately and in as a feature of the local area. In the event that the more youthful age needs dominant computerized ability, this is extremely unsafe for them to be barred in rivalry for occupations, vote-based support, and social cooperation.[15]

Computerized education will make a social request by basic innovative mentality and perspectives.[16] They will not be effortlessly consumed by provocative issues, become survivors of data fabrications, or survivors of computerized-based extortion. Consequently, the social and social existence of the local area will more often than not be protected and helpful. Building a computerized proficiency culture. Building achievement computerized education is one of the signs of accomplishment in the field of schooling and culture.

RESEARCH METHODS

This study utilizes a subjective strategy approach. The subjective technique is an examination model that gets illustrative information as composed or verbally expressed words through friendly peculiarities and human issues connected with the universe of computerized education. The

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[14] Damon Kiesow, Jessica Beck, and Audra Roach, *(E) Dentity*, n.d.
[15] Dana Ahmad and A L I Muhammad, "THE ROLE OF SOCIAL MEDIA ON YOUTHS ' POLITCAL PARTICIPATION IN IRAQI KURDISTAN REGION," 2018.
[16] N. Selwyn, "The Use of Computer Technology in University Teaching and Learning: A Critical Perspective," 2007, https://doi.org/https://doi.org/10.1111/j.1365-2729.2006.00204.x.

information assortment strategy was brought out by writing concentrate on through writing research as books, logical diaries, proposals, and propositions. While the perception cycle is completed on advanced or online media and broad communications, as well as YouTube channel media oversaw by the focal government, territorial legislatures, and confidential gatherings to get information that upholds the exploration. The information examination strategy utilized in this study is content investigation, the scientist portrays the information that has been acquired from different computerized or online media stages and broad communications, as well as writing sources through composition and pictures that become a necessary piece of the exploration. Subsequently, the normal eventual outcome is that the specialist can play out an ideal and great examination in noting the plan of the issue that still up in the air.

THEORY FRAMEWORK

1. New Media Theory
   New media hypothesis is a hypothesis created by Pierre Levy, who contends that new media is a hypothesis that examines the improvement of media. While in the hypothesis of new media there are two perspectives, first is the perspective on friendly association which recognizes the media as per their nearness to eye to eye connection. Pierre Levy sees the World Wide Web (WWW) as an open data climate. Its adaptable and dynamic nature permits people to foster new information directions. The subsequent view is social mix which is an image of the media not in that frame of mind of data, connection or dispersal, yet as ceremonies or how people utilize the media as an approach to making society. Subsequently the media isn't just an instrument of data or a method for accomplishing personal circumstance, yet rather to introduce oneself in a few type of society and give common trust.[17]

   New media is a term expected to envelop the development of advanced, PC, or arranged data and correspondence advancements in the late twentieth 100 years. A large portion of the innovations depicted as "new media" are computerized, frequently have the qualities of being manipulable, organized, thick, incompressible, intelligent and fair. A few models incorporate the Internet, sites, mixed media PCs, PC games, CD-ROMS, and DVDs. New media are not TV, films, magazines, books, or paper-based distributions.[18]

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[17] Fanny Aulia Putri, "Opini Siswa Terhadap Cyberbully di Media Sosial". Skripsi Departemen Ilmu Komunikasi Fakultas Ilmu Sosial dan Ilmu Politik Universitas Sumatera Utara, Medan : 2014. p. 7

[18] Denis McQuail, "*Teori Komunikasi Massa",* (Jakarta : Salemba Humanika, 2012), p. 148

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

204

Beginning around 1960, the term new media has really been utilized, incorporating a developing and various arrangement of applied correspondence innovations. New media incorporates web based media, both using PCs and cell phones (cell phones) that are straightforwardly associated with the web organization. As the banner cited in Denis McQuail's book says, the new media disregards the constraints of printing and broadcasting models by empowering discussions between many gatherings, as well as permitting the concurrent gathering, change and reallocation of social articles, as well as slowing down the correspondence demonstration of the significance of provincial relations and advancement, giving moment worldwide contact and consolidating present day/late current subjects into the organized machine contraption.

Denis McQuail in his book on mass correspondence hypothesis citing the meaning of new media from the proofreader of the Handbook of new media, said that new media associates data and correspondence innovation with related social settings and joins a few components including mechanical devices and curios, exercises, practices and uses. Furthermore, the request for social association that structures around these instruments and practices. The fundamental attribute of new media is the presence of interconnected admittance to individual crowds as beneficiaries and shippers of messages, with regards to intuitiveness, different purposes as open characters and universal in nature.

2. U*ses* and Gratifications Theory

Concentrates on in this field center around the clients of media content to get satisfaction for one's requirements. Most crowd conduct will be made sense of through different individual necessities and interests. Despite the fact that it ought to be perceived that this is a peculiarity in regards to the most common way of getting messages from the media, so this hypothesis doesn't cover or address the whole correspondence process. The purposes and delights hypothesis gives an elective perspective on connection between media content and crowds, as well as ordering media content as indicated by its capability. Katz depicts the rationale that underlies this hypothesis is an individual's social mental circumstances, needs, which make assumptions for the broad communications or different sources, contrasts in media use designs, satisfaction of requirements and different results, it were not recently acknowledged to incorporate those that.[19]

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[19] Syaiful Rohim, "*Teori Komunikasi, Perspektif, Ragam dan Aplikasi*", (Jakarta : Asdi Mahasatya, 2016), p. 200-201 .

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

205

Uses and gratifications leave from the view that correspondence (particularly new media) doesn't have the ability to impact crowds. Since the center of the purposes and delights hypothesis is that crowds fundamentally utilize new media in view of specific thought processes. The media is thought of as attempting to satisfy the intentions of the crowd, consequently in the event that this rationale is satisfied, the necessities of the crowd will be satisfied. So in the end the media that can address the issues of the crowd is called powerful media.[20] Uses and gratifications theory firmly connected with media openness or media openness, since it alludes to exercises utilizing media. So essentially openness is something other than getting to the media and not just about whether truly close enough to the presence of new media, yet whether somebody is truly open to the messages of the new media. Openness is a movement of hearing, seeing and perusing new media messages or having experience and worry for these messages that happen in people or gatherings.

RESULTS AND DISCUSSION

Demography Bonus

The segment reward is fundamentally indivisible from the millennial age. In view of the past clarification, Indonesia's 2015 reliance proportion of 49.20 in a roundabout way implies that the level of the useful age populace stretches around 67.02 percent of the all out populace. Moreover, assuming the level of the number of inhabitants in useful age is related with the level of the millennial age in 2017, which is 33.75 percent of the absolute populace. This implies that the commitment of the millennial age in molding the design of the number of inhabitants in useful age is very high, in light of the fact that around 50.36 percent of the complete useful age populace is essentially the millennial age (accepting: reliance proportion in 2015 and 2017 is something similar).[21]

As the biggest populace, obviously, the millennial age will assume a significant part in the period of segment reward. This age will be in charge of the wheels of improvement, particularly in the financial area, as would be considered normal to have the option to bring the Indonesian country towards a further developed and dynamic turn of events. Generally, the millennial age is a major money to understand the improvement of a country, it is trusted that the millennial age has better

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[20] Rachmat Kriyantono, "*Teknik Praktis Riset Komunikasi*", (Jakarta : KENCANA, 2014), p. 207-208
[21] STATISTIK GENDER TEMATIK: PROFIL GENERASI MILENIAL INDONESIA, (Jakarta: Kementerian Pemberdayaan Perempuan dan Perlindungan Anak, 2018), p. 3-7.

potential looked at than past ages. To figure out how much potential and capacities the Indonesian millennial age has as an arrangement to drive the wheels of Indonesia's turn of events.

Transformation of People's Lives

Focus on developing people to enjoy a high quality of life, by incorporating or utilizing advanced technology in various social activities industries and encouraging innovation to create new value. In the era of society 1.0, human life was still in the hunting and gathering landscape, and life moved from one location to another (nomadic). Then, in the era of society 2.0, human life has been transformed in the form of agriculture for livelihood. Generally, farming relies on rainfall throughout the year and is rainfed, while the crops are secondary crops and tubers.

Furthermore, the era of society 3.0, namely people's lives that have shifted to industry, the construction of factories and the use of transportation tools that support industrialization activities. Then, the era of society 4.0, namely the community has enjoyed the convenience of getting information from various social media sources connected to the internet network and the use of various types of communication and information tools. Finally, society 5.0 is a society that has concentrated or oriented towards the human type (human-centered) and based on digital technology as in the era that society is living in today.

Picture 2. Transformation of People's Lives
(Source: Literasi Lintas Generasi 2022)

Digital Media Smart Level

Level	Definition
Basic	People have many capacities that empower essential media use. There are restrictions on media use. Clients know their essential capacities, use them for explicit purposes and to characterize the apparatus. The client's ability to investigate basically the data obtained is still limited.
	The capacity of individual information through the media is also limited. People who are well versed in the use of media, know their capacities and can use them, are more confused. Wider use of media. The client knows how to get and assess the data the person

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

207

Medium	needs, as well as assess (and improve) the data to search for procedures.
Advanced	People are very dynamic in the use of media, pay attention to and are interested in the regulations that affect their use. Clients have inside and outside information about methods and language and can investigate (and, ultimately) change circumstances that affect their open connections and message generation. In the social field, the client can enforce proper meeting participation allow him to take care of this matter.

Table 1.Digital Media User Level[22]

Across Generations of Society

Generation "Baby Boomers" (1946 - 1965). There are those who are passionate about learning innovation, there are also those who never give up in brushing it off, so it is often called the "mechanical stuttering" era".[23]

Generation "X"(1965 - 1980). Progress from simple innovation to advanced innovation. The capacity to store data that differs from age to age causes further education to fill rapidly in its utilization. Age X is an era that was born at the beginning of a long period of innovation and data development such as the use of PCs (PCs), computer games, satellite TV and the web. Age X can adapt and can recognize changes well so that it can be said as a capable age, with character. Attributes and qualities: Resourceful, independent, needs close to home comforts, prefers something casual and has business/exchange skills compared to Generation X. Daily life between work and individual balance, creates open doors, likes positive work connections and preference opportunities and have room to develop.[24]

Generation "Y" (1981 – 1995). Computer skills at this age are generally very good and solid. This age will generally ignore garbled data and immediately break up the flood of data that accompanies it. Age Y is known as the millennial age or just graduated from college. Age Y uses many instant correspondence innovations such as email, SMS, SMS, and more. This is because age Y is the age that experienced childhood in the roaring internet era (Lyons, 2004) (in Putra, 2016). Not only that, Generation Y is more open in political and financial perspectives, so they seem very responsive to the natural changes that occur around them. Attributes and qualities: more dedicated to the

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[22] *European Commission Directorate General Information Society and Media: Media Literacy Unit, 2009.*
[23] How to Manage Millennials: 8 Ways to Do it Right. Diakses dari https://guthriejensen.com/blog/8-steps-tomanage-millennials/ (2015).
[24] The Generation Guide - Millennials, Gen X, Y, Z and Baby Boomers. Access date http://fourhooks.com/marketing/thegeneration-guide-millennials-gen-x-y-z-and-baby-boomers art5910718593/ Peter., (2015).

organization, work is one of the needs, but not the main requirement, likes simple standards, likes acceptance and directness. At work, the group's direction is concentration. Like criticism and furthermore like new difficulties trying to stretch their limits.[25]

Generation "Z" (1996 – 2010). The use of computerized education has begun to change in importance. This age is starting to regard computerized education as a source of data if their popularity helps. Age Z is the youngest age to enter the workforce. This era is usually referred to as the web age or Regeneration. Age Z is increasingly linked socially via the internet. From a young age, this age has been widely presented by innovation and familiarity with cell phones and is classified as an imaginative age. Qualities and attributes: Prefers social practice in contrast to the past, likes to be in new business, multitasks, likes innovation and is good at working on innovation, often thinks about climate, is easily influenced by the climate in terms of items.

The main trademark differences between ages X, Y, and Z are data authority and innovation. For age Z, data and innovation are things that have been a part of their life, since they were born where acceptance to the web has turned into world culture, this way affects their quality and point of view. This year, normally in the realm of training, the age that currently takes the most courses is the millennial age. Where millennials mostly like something extraordinary, really like adversity and grants. They will generally be arrogant, trying to offer a point of view, either in person or through online entertainment. This era (recent college graduates) is developing along with the emergence of various new leaps forward in correspondence innovation, ranging from SMS, Email, Instant Messaging applications such as BBM, Whatsapp, Line, and various types of correspondence. The type of correspondence that is structured is considered more suitable and appropriate in the millennial era. Recent college graduates will also more often than not create an unfavorable climate for study, work, and day-to-day discussions. This shows that twenty to thirty-year-olds prefer all kinds of correspondence that are friendlier and more personal in tone.[26]

Generation "Alpha" (2011 – Until now). Since birth has been associated with this innovation, making them people who mostly rely on the use of gadgets or sophisticated brands, smart and easy to capture data quickly. According to Hasanuddin Ali and Lilik Purwandi (2017) in their book Millenial Nusantara, it is stated that millennials are those who were born into the world between

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[25] Ariotedjo D., 2017, "Milenial Kota Versus Milenial Desa", https://geotimes.co.id/kolom/sosial/milenial-kota-versus-milenial-desa/ access date 21 Mei 2022

[26] Ali Hasanuddin, dkk. *The Urban Middle-Class Millenials Indonesia* : *Financial and Online Behavior*, (Jakarta : Alvara Strategi Indonesia, 2017), p. 56-59.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

209

1981 and 2000. Meanwhile, other local social experts took advantage of this time extension. the birth period from the 1980s to the 2000s to characterize the millennial era.[27]

When segment rewards occur, millennials, who are the largest productive age population, take on an important role. Therefore, strengthening the reward segment must be made possible through the capabilities of the millennial era. Entering the workforce, recent college graduates will have a different calling, but overall millennials have different qualities from their previous ages (age X, the time of increasing birth rate, and the age of veterans). To improve the capabilities of the millennial generation, understanding their characteristics is very important. Understanding the qualities of a twenty to thirty-year-old will have its own criticality during the segment award period. In addition, assuming that Indonesia has entered the MEA (ASEAN Economic Community), implies that job competition is not only between Indonesians, but also with foreign nationals, creates skills, increases efficiency, and is an absolute requirement to teach specialists closest to being satisfied.[28]

Open-Minded Thinking

The ability to think critically or critically thinking anwith d higher-order thinking is an essential part of competence in the 21st century. The development and innovation of information techmakey makes more and more daily problems handled by the push to create information technology that is so complex, accelerated and full of uncertainty. On a personal level, the ability to think independently and learn throughout life becomes an important thing for individuals who want to adapt to the new environment and complex problems in the order of human life.

One of them is the disposition of open-minded minded thinking or thinking openly and actively. The intrinsic value of the dispositiopen-minded thinking can be understood in the context of the thinking process when facing a problem. In this realm, one needs to look for possible solutions and information that can be used to evaluate every possibility. Each individual with a strong open-minded thinking disposition tends to be active in his efforts to obtain various criteria, solutions, and evidence that contradicts his personal opinion. Thus, the main characteristic of open-minded thinking is not the length of time a person thinks and how hard or soft a person thinks, but where the direction and purpose of thinking is. This process can produce conclusions that may make individuals to review or break opinions that they previously believed.

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[27] *Mengenal Generasi Milenial*, Sindonews.com, 2015.
[28] Cornelly, Bill, (2018). Rule No. 1 For Dealing With Millennials In The Workplace. Diakses dari https://www.forbes.com/sites/billconerly/2017/12/27/rule-number-one-for-dealing-with-millennials-in-theworkplace/#728f738f5c6f Jensen, G., (2017) access date 19 Mei 2022.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

210

First, hoax. The spread of fake news (read: hoaxes) in the digital world has reached an alarming level. In addition, hoax data is also increasing rapidly in Indonesia. The phenomenon of hoax is no longer a taboo subject. As if it has taken root in the community supported by the existence of social media. The Ministry of Communication and Informatics (Keminfo) identified that hoaxes were increasing rapidly last April, the Communications and Information Technology found 484 hoaxes, fake news, fake news during April 2019.[29] A and the total number of hoaxes that was successfully obtained by the AIS Machine was verified and validated by Kominfo to 1,731 hoaxes from August to April 2019.[30] Various hoax events became a global phenomenon. Hoaxes can be understood as fake news or lies4, according to Silverman (2015) hoaxes are a series of information that is intentionally misled, but is "sold" as truth. Ireton, Posetti and UNESCO (2018) define fake news as fake news that contains information that intentionally misleads people and has a specific political agenda. Hoaxes are not just misleading or misleading, the information in fake news also has no factual basis, but is presented as if it were a series of facts.[5]

Hoax have become a way of life. The truth is twisted. Fensi said, many observers refer to this phenomenon as post-truth. The truth is contained in the untruth that the truth is considered a hoax. This is a very scary phenomenon. There is a group of people who call themselves the "Indonesian Telematics Society (Mastel)6" of the opinion that the hoax outbreak in Indonesia will have a direct impact on national divisions, political instability, and various other security disturbances that could potentially hamper national development. This is reinforced by the results of a survey by this institution, showing that 75.90% of Indonesian people consider hoaxes to disturb community harmony and 70.20% of hoaxes can hinder ongoing development.[31]

Second, Cyber Bullying. A communication activity that is carried out without being accompanied by supervision in the social-societal sphere will cause various deviations. Not a few cases were found to occur in these generations of Gen Z and Millennials regarding cyberbullying. In a research report issued by the Ministry of Communication and Informatics (KOMINFO) and in collaboration with UNICEF, it was noted that in 2011-2013 published in February 2014 it was stated that most teenagers in Indonesia had become victims of cyberbullying. The research involved 400

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[29] Janner Simarmata, Muhammad Iqbal, Wahyuddin Albra, dan dkk. *Hoaks dan Media Sosial Saring Sebelum Sharing*. (Medan : Yayasan Kita Menulis, 2019), p. 2-5.

[30] Kominfo. Temuan Kominfo : Hoaks Paling Banyak Beredar Paling Banyak Beredar di April 2019. (Kominfo.go.id: Sorotan Media, 02 Mei 2019) access date 7 Mei 2022.

[31] Fabianus Fensi, *Fenomena Hoax: Tantangan terhadap Idealisme Media & Etika Bermedia*, (Jakarta: Bricolage Jurnal Magister Ilmu Komunikasi Universitas Bunda Mulia. Vol. 4, No. 2, 2018), p. 134-135.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

211

children and adolescents with an age range of 10-19 years. In Indonesia, 14% of parents who were respondents to the survey stated that their children had experienced cyberbullying, and 53% stated that their children had experienced cyberbullying.

Third, Cyber Crime. A form of crime that appears as a negative impact of the development of digital-based applications. The extent to which people can access about us on the internet. As a network that connects one device to another, various device user activities can be accessed by other users. Then the security issue is related to how we can protect the security of various programs on our computers, especially protection against cyber attacks.[32] *The International Telecommunication Union* defines cyber attacks as any form of activity in which a computer or network is a tool, target or venue for criminal activity.
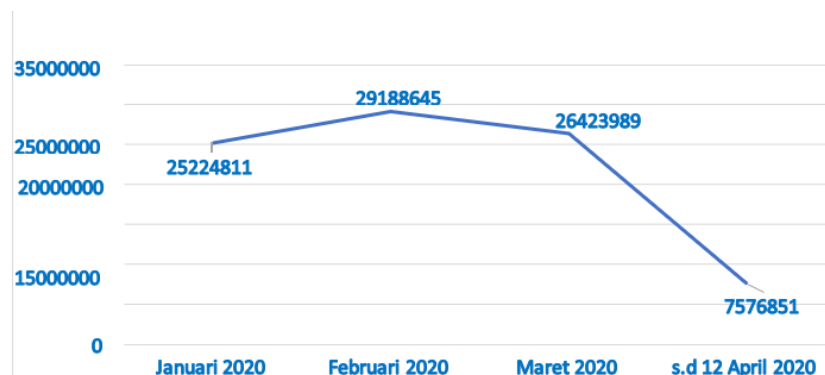
Picture 1.2. Cyber Attack Count Data
Source: BSSN (2020)

The issue that can be found is spam. Spam is messages in an email that you didn't want but managed to get into. These unwanted messages can be dangerous for us. It could be that without us realizing it we then do things that can leak information related to digital privacy and security to other people who are not responsible. Most email apps identify spam and place it in the spam or junk section. However, if we still receive spam messages in our email inbox, we can mark them as spam so that the email service provider can identify the message in the future.[33]

Cyber attacks can be harmful and harmful not only to software and hardware, but to ourselves as well. According to data from BSSN, cyber attacks from January 1 to April 12, 2020 reached

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[32] J. R. Levine & M. L. Young, *The internet for dummies*, (Indianapolis: John Wiley & Sons, 2010), p. 56
[33] J. R. Levine & M. L. Young, *The internet for dummies*, p. 60-63.

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

212

88,414,296.[34] These numbers show that we really need to pay more attention to digital security. The FBI in its report states that crimes that can be categorized as cybercrime have quadrupled in the last three years. Among the forms of cyber crime are:

Unauthorized Acces to Computer System and Service. This type of crime has the characteristics of the perpetrators (read: hackers) doing so with the aim of sabotage or theft of important and confidential information. The Federal Bereau of Investigation (FBI) site also did not escape attacks by hackers which resulted in the site's malfunction for some time.

Ilegal Contents. Among the examples is the loading of fake news (read: hoaxes) or slander that will destroy the dignity or self-esteem of the other party. In the form of things with the theme of pornography or the loading of information that is a state secret, agitation and propaganda to fight against the legitimate government, and so on.

Data Forgery. Is a form of crime in which the perpetrator falsifies the data contained in important documents stored as scriptless documents through the internet network. This type of crime is generally aimed at e-commerce documents by making it appear as if there was a typo which in the end can cause harm to the owner and profit to the perpetrator. These crimes in the realm of the cyber world occur due to the not yet optimal understanding of netizens about the impact given to victims. Coupled with the fact that social media has such a wide scope, so that negative information whose accuracy cannot be confirmed can be accessed and enjoyed by anyone.

Malware. Another thing to look out for in the rest of the digital world is malware. Malware is a general term for any software that is specifically created to cause problems for computers.[35] In the publication of the Microsoft Asia Pacific report in the latest issue of the 2019 Security Endpoint Threat Report, it shows that Indonesia has the highest malware rate.[36] There are two general terms related to malware, namely computer viruses and spyware.[37] A computer virus is a program that can

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[34] Badan Siber dan Sandi Negara (BSSN). (2020). *Rekapitulasi insiden web defacement.* Access from https://cloud.bssn.go.id/s/qpBD4mbZCmL3F85#pdfviewer, 18 Mei 2022.

[35] F. Wempen, *Digital Literacy for Dummies*, (Hoboken, New Jersey: John Wiley & Sons, 2015)

[36] Microsoft Indonesia, Tingkat kasus malware di Indonesia tertinggi di AsiaPasifik: Laporan Microsoft Security Endpoint Threat 2019*. Microsoft.* Diperoleh dari https://news.microsoft.com/id-id/2020/06/26/tingkat-kasus-malware-di- indonesia-tertinggi-di-asia pasifik-laporan-microsoft-security-endpoint-threat 2019/#:~:text=Kasus%20malware%20dan%20ransomware%20tetap%20tinggi%20di%20Indonesia&text= ndonesia%20tercatat%20memiliki%20tingkat%20kasus,tin   ggi%20dari%20rata%2Drata%20regional. Access date 20 Juni 2022

[37] M. Miller, *My Internet for seniors*, (Indianapolis, Indiana: Que Publishing, 2016).

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

213

infect a computer and infect other computers. It can disrupt internet access and device functions. While spyware (can also include adware) infects a computer through various digital documents downloaded by the browser. This spyware can of course also be dangerous for internet users. Spyware can collect information about us and send it to other parties without our knowledge.[38] This information is of course related to the use of gadgets and internet networks. According to Miller, there are several tips we can do to avoid *malware:*

First, it isa wish to open attachments from incoming **emails**, whether from known email addresses or not, if we do not expect them to be sent. This is because some *malware* can hijack email addresses and infect computers and send messages even that the owner of the computer is unaware of. Problems can arise if we open the attached document that is in the message.

Second, youdownload *files* and documents from trusted sites.

Third, it'swishful thinking of accessing and downloading *files* from file-sharing

Fourth, it is toshare file storage hardware with people or computers that we trust.

Chart 1. Tips to Avoid *Malware[39]*

These tips can be done to avoid malware and can be used when using a desktop computer, notebook, netbook, tablet, or smartphone. Attachments in smartphones also need to be considered carefully. This is because with the touch screen and auto-download feature, we can easily download them without realizing it. In addition, we can also face malware, viruses, spyware, and so on with certain software.

Phishing is a term used in the digital world where someone tries to deceive others with the aim of obtaining personal data, such as usernames, e-mail passwords, phone numbers, family data, and so on. Fraud in this form is generally through sending spam activities to accounts that potential victims have in the form of links or links that lead to fake web pages, such as DMs through Instagram accounts in the form of links. In addition, there are several types of DM including giving away giveaways, getting prizes in the form of money directly or something that is made as attractive as possible with the aim of directing the account owner (read: potential victims) to "click" the link or link that has been given.If you look closely, it looks simple and trivial, but it is actually dangerous. This is because the personal data of potential victims on their social media can easily be stolen. It is

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[38] J. R. Levine & M. L. Young, *The internet for dummies*, (Indianapolis: John Wiley & Sons, 2020)

[39] M. Miller, *My Internet for seniors*,

QAULAN, Vol. 3, No.2, Desember 2022
Ali Ridho and Nurul Izzah S. M. Aksan, The Urgency of...

214

very unfortunate if social media accounts that have been owned and maintained in such a way, are in fact easily controlled or even damaged by irresponsible people.

CONCLUSION

Digital literacy is the knowledge and ability to use digital technology, communication tools, or networks in the process of finding, evaluating, using, and creating information, as well as using it in a healthy, wise, intelligent, careful, precise, and law-abiding manner. The practice of digital literacy involves the ability to discover and consume, create, and communicate digital content, while simultaneously using a critical evaluation process. With the increasing difficulty in the advanced space, education must continue to be carried out to practice individual computerization skills. The Ministry of Communications and Information Technology recently launched a public computing proficiency program called Indonesia Gets Digitally Capable. Difficulties in the computerized space are getting bigger, negative substances continue to emerge and errors in the advanced space continue to grow.

It is our aggregate commitment to work on individual computerization skills through advanced proficiency. Negative substances spill over in advanced spaces, such as fraud, online misrepresentation, internet gambling, young people's dual sexuality, digital harassment, insulting discourse, to computerized-based radicalism. These things have to be watched out for in light of the fact that they jeopardize the solidarity and honesty of the country. With computerized skills, we can limit the negative substance and flood the forward space with positive substance. Computerized education is a challenging task, so public authorities cannot work alone. Public authorities need to get support from all parts of the country so that more individuals are carefully educated. Then, at that time, we believe that the development of computerized education will continue to grow and can encourage various incentives to complete substantial work. This community is also increasingly suitable for involving the web for various learning and useful activities, so that the web can increase regional efficiency, increase MSMEs that move up to the web-based business stage, and even make MSMEs advance to the classroom, so that the web can offer additional benefits to all levels of society. Indonesia's Makin Cakap Digital public computerized education program is a development of the president's mandate to improve computerized human resources.

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216

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217

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218

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219