



Utilization of Information Communication Technology on Education and Social Change of Village Community

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Abstract

Information and Communication Technology (ICT) changes people's lives and becomes a vital development tool, including in rural areas. ICT also provides positive and negative social change for rural communities in terms of social welfare, social and cultural ties. The purpose of this study was to get an overview of the use of ICT for social changes that occur in the community in Sungai Sirah village, Padang Pariaman Regency. The method used is a qualitative approach. The results of the study found that most rural communities already use ICT (cellular phones). Meanwhile, computers/laptops are still used by certain groups, such as village officials, youth organizations, teachers and students. Internet is still very limited in use due to limited access/network, expensive data packages and minimal skills. There are social changes in society, limited to ways of communicating, seeking/disseminating information and making work easier. While e-commerce activities (online buying and selling) that can improve the social welfare of the community do not yet exist. Aspects of individual social ties indicate that the need to communicate drives people to use ICT. However, direct/face-to-face communication is still the main thing. Village communities are also less worried about cultural changes due to the negative impacts of using ICT. Because the norms developed in the village are still firmly held by the community. However, filters and anticipation of the negative impacts of using ICTs must still be prepared, especially in schools

Keywords: *Information and Communication Technology, social change, rural communities.*

Introduction

It is no stranger today that the use of Information and Communication Technology (ICT) can change people's lives. ICT allows the factor of distance and time to be limitless and transforms society and even becomes a vital development tool, including in rural areas. ICT also plays a role as a key technology (enabler technology) if applied and used properly which is very important for developed countries like Indonesia. The more available information for the community,

including those in rural areas, makes rural communities develop independently because they use ICT for positive activities. It can be said that ICT can contribute to social change in society both positively and negatively. Social change is all changes in social institutions in the community that have an impact on the system including values, norms and behavior patterns between groups in the community, and one of the causes is technology¹

One of the changes that occur due to the massive use of ICT is a change at the level of socio-cultural aspects of urban and rural communities. There are several things from the socio-cultural aspect that are strongly influenced by the use of ICT such as social welfare and social ties. Changes that occur, for example, the increase in the economy due to the use of ICT. But also changing the values that have been embraced so far, such as the value of friendship no longer having to be direct (physical) but enough through social media or instant messaging, religious values, manners and so on. ICT also has an impact on social life to affect even larger aspects, namely culture, including changes in value systems and norms². People who live in rural areas are included as traditional communities that are still bound by customs or customs that have been passed down from generation to generation. Rentelu, et.al (in Bouman, 1980) said that traditional society is a society that carries on its life based on the standard of customs and traditions that exist in its environment. Their lives have not been too influenced by changes that come from outside their social environment, so the lives of traditional people tend to be static.

The villages in Padang Pariaman Regency are known as very religious villages. Local art in Padang Pariaman Regency has a relationship and origin with certain tarekat. In the Padang Pariaman Regency area, there are many cultural materials that developed as a result of the influence of the Islamic way of life ranging from activities of daily life to architecture. Even some articles of regional regulations that substantially reflect Islamic ethical values developed by

¹ and MH SH. H Zulkarnain Lubis, M. H., H. Bakti Ritonga, *Dasar-Dasar Hukum Acara Jinayah* (Prenada Media, 2016).

² Sri Handini, “Pemberdayaan Masyarakat Desa Tamansari,” *Jurnal Universitas Airlangga* 3, no. 2 (2020): 1–27, <http://repository.unair.ac.id/101994/4/4>. BAB I PENDAHULUAN.pdf.



indigenous peoples such as the Malays of Padang Pariaman Regency, Malewa festivals such as the 'Tabuik' event which are still maintained until now. Even in Sungai Sirah Village, for example, this tradition is carried out once a year. Are the traditions and customs that are still strong in the villages in Padang Pariaman Regency, can they be shifted slowly with new innovations in the form of using ICT with all the consequences? Imani et.al (2012) mentions that there are many problems that can change a traditional society into a modern society³. Even using one new type of technology can shake communities in even the smallest of villages. The shift in change is inseparable from changes in the social system in society due to the widespread use of new media. Jack & Akujobi (2017) mention that technology such as the internet that is used can shape culture and society and even the internet has become part of the social structure of society⁴. Moreover, the results of the Kominfo survey in 2017 showed that more than half of Indonesians already own a smartphone or 66.3%. It was also stated that 50.39% of individuals living in rural areas (villages) already have smartphones and 32.30% of them use the internet, which is mostly used to communicate and find information (Kominfo, 2017)⁵.

Social changes in society are not only caused by technology, but also due to environmental factors, culture, personality, politics, economy, religion, ideology, population changes and so on (Jack & Akujobi, 2017). On the other hand, socio-cultural factors can also hinder or support the use of ICT⁶. As stated by Roger (1995) in the theory of diffusion of innovation, that the social system as an important parameter in the process of diffusion of innovation. The structure of social systems affects diffusion in many ways, and specifically addresses the effects of social norms on the rate of adoption and utilization of innovations.

³ Norbert Schwarz, *Cognition and Communication: The Logic of Conversation, Cognition and Communication: Judgemental Biases, Research Methods and the Logic of Conversation*, 1996,

³http://medcontent.metapress.com/index/A65RM03P4874243N.pdf%5Cnhttp://www.seni.orsequence.net/old_version/images/uploads/2008/01/schwarz-logic-of-conversation.pdf.

⁵ Handini, "Pemberdayaan Masyarakat Desa Tamansari."

According to Rogers, social norms can be a major barrier to change. While Thomas (1987) also argues that new technology will be accepted by society depending on how appropriate the innovation is with the existing culture. Based on the above background, the problem formulation of this research is how is the use of community ICT in Sungai Sirah Village, Padang Pariaman Regency? And how are the social changes that occur in people's lives in Sungai Sirah Village, Padang Pariaman Regency? The purpose of this study is to get an overview of the use of community ICT and social changes that occur in people's lives in Sungai Sirah Village, Padang Pariaman Regency.

Theoretical Basis

Many researches on the effect of using ICT on society have been carried out including by McGrath (2012) with the title "The Impact of New Media Technologies on Social Interaction in The Household"⁷. The results showed that new media technology had a negative impact on social interactions between individuals in the household. First, individuals in the household use new media technologies and are immersed in daily routines. Second, it is known that there is a close correlation between the new location of media technology in home and social interactions. In addition, other findings mention that new media technology in the home leads to an increase in social isolation and the privatization of people's lives in the household. "The challenges of ICT development in rural area case study: Village Aleni, Meshkin Shahr in Ardebil Province" is a study conducted by Imani et.al⁸.

This study shows that although it has basic information technology, is close to the city, and has the potential for advanced technology, Sungai Sirah Village has so many problems and challenges to improving informatics, mainly

⁷ Joseph A. Shaeiwitz, *Classroom Assessment, Journal of Engineering Education*, vol. 87 (McGraw-Hill Higher Education -A, 1998).

⁸ Barbara E Walvoord, *Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education (Jossey-Bass Higher and Adult Education)*, vol. (0), 2004, <http://www.amazon.com/Assessment-Clear-Simple-Institutions-Departments/dp/0787973114?SubscriptionId=0NM5T5X751JWT17C4GG2&tag=ws&linkCode=xm2&camp=2025&creative=165953&creativeASIN=0787973114>.



because of economic problems (high internet costs and not using the internet to improve the economy). also because of socio-cultural problems. In addition, the lack of investment and government support caused external setbacks not to develop an ICT Center in this village. Zulkarnain, et al also conducted a study entitled "The Relationship Between Android Use and Rural Social Change: A Study of Social Change in Bogor Regency, West Java"⁹. This study is to find out whether android technology has an impact on traditional rural social systems or not. This research method is a mix method. The results of the study found that social norms that have existed for a long time and are rooted in rural communities can be managed and still work as a social control mechanism. However, there are indications that individual rationalization is taking place, this may loosen the social cohesion of rural communities. The previous studies above discussed the influence of the use of ICT on the social aspects of society, especially in villages. The difference with this study lies in the subject of the village, where the selected village is a village that has a very strong socio-religious background, so that it can be seen the difference with ordinary villages. Research on the same typical village has never been done before, so this research is considered important and becomes the novelty of this research. The development of communication technology, such as mass media, both print and electronic, greatly influences the social and cultural life of the people in a place.

As stated by Hirschman (1958), there are three factors that can influence social change, namely: 1) work pressure in society; 2) communication effectiveness; and 3) changes in the natural environment. From these three factors, the human mind is encouraged to create something that makes it easier for them to solve problems. Technology as an answer to human thinking becomes a tool to help solve existing problems. Technology is expected to be a facilitator and interpreter. One theory about the acceptance or use of Information and Communication Technology (ICT) is the Technology Acceptance Model (TAM). This theory introduced by Davis (1989) explains that individual acceptance of the

⁹ H Zulkarnain Lubis, M. H., H. Bakti Ritonga, *Dasar-Dasar Hukum Acara Jinayah*.

use of information technology systems. The TAM model is a model of acceptance of information technology systems that will be used by users because the decisions made by individuals to accept information technology systems are conscious actions that can be explained and predicted by their behavioral interests.

TAM argues that individual acceptance of information technology systems is determined by two main constructs added to the TRA model, namely perceived usefulness and perceived ease of use. Both have an effect on behavioral interest. Technology users will have an interest in using technology (behavioral interest) if they feel the technology system is useful and easy to use¹⁰. It is undeniable that the acceptance and use of ICT will have an impact on existing social life to an even larger aspect, namely culture. Some of the real impacts of the existence and development of communication technology include changes in the value system and norms, creating dependence, and colonialism. The theory of social change states that society is depicted as a pyramid consisting of three interrelated layers. The first layer is infrastructure which includes ecological, demographic, and technological conditions owned by an area. Infrastructure in an area greatly affects the social structure in the area itself. The social structure in the pyramid occupies the second layer. The social structure includes race, ethnicity, social stratification, education and gender equality. The third layer is the superstructure ideology in which the ideology is also influenced by social structures which include religion, science, art, and so on¹¹.

For example, when the agricultural system begins to shift to trade, an agricultural society is formed which is friendly, solidarity and institutionalizes traditions. However, when technology began to be used, at the same time the mode of rural production also changed which was then followed by changes in the social structure. Rural social stratification is no longer based on those who own land, but also on the high level of education and flexibility in accessing information and technology. Gillin and Gillin (2006) argue that social change is a

¹⁰ Advisory Board et al., *Standards-Based Mathematics Assessment in Middle School: Rethinking Classroom Practice*, *Choice Reviews Online*, vol. 42, 2005.

¹¹ Brian Detlor et al., “Factors Affecting Student Learning Outcomes of Information Literacy Instruction,” *Proceedings of the ASIST Annual Meeting* 47 (2010).



variation of accepted ways of life, caused by changes in geographical conditions, material culture, population composition, ideology, as well as diffusion and new discoveries in society¹². Meanwhile, according to Weber socio-cultural change is a change in the situation in society as a result of a mismatch of elements. Soemardjan himself said that social change is all changes in social institutions in a society that affect the social system. This includes values, attitudes, and patterns of behavior among groups in society¹³.

Social change according to Soekamto occurs for two reasons, namely changes caused by the community itself (internal) and from outside (external)¹⁴. Internal causes include population dynamics, namely the increase and decrease in population, the existence of new discoveries that are developing in the community, both new discoveries or new discoveries that are perfecting from old forms of discovery and the emergence of various forms of conflict in society. External causes which are causes that come from outside the community include the influence of natural disasters, wars, and the influence of other people's cultures. The forms of social change can be either progress or decline.

Change as progress is a change that gives and brings progress to society. This is certainly highly expected because progress can provide benefits and various conveniences for humans. The change in the conditions of traditional society, with a technological life that is still simple, to become an advanced society with various technological advances that provide various conveniences is a development and development that brings progress¹⁵. Change as a setback

¹² Khaloufa Dhafer Al-Shehri, "Teachers ' and Students ' Attitudes toward Formative Assessment and Feedback in Teaching English for Specific Purposes ESP" (2008): 79, <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwjxjsDH4rLUAhUFqo8KHdFgABwQFgg3MAI&url=http%3A%2F%2Fasian-efl-journal.com%2Fwp-content%2Fuploads%2Fmgm%2Fdownloads%2Fthesis%2Fthesis-khaloufah-dhafer-al-shehri.pdf&us>.

¹³ Catherine Garrison and Michael Ehringhaus, "Formative and Summative Assessments in the Classroom AMLE Assessment Resources," *Taking the lead* (2007): 11–13, http://www.amle.org/Publications/WebExclusive/Assessment/tabid%0Ahttp://ccti.colfinder.org/sites/default/files/formative_and_summative_assessment_in_the_classroom.pdf.

¹⁴ Dwi Rini Sovia Firdaus et al., "Portrait of The Minangkabau Culture According to Hofstede's Six Cultural Dimensions," *Sodality: Jurnal Sosiologi Pedesaan* 6, no. 2 (2018).

¹⁵ *Ibid.*

sometimes has an unplanned negative impact and can cause new problems. If the change turns out to be unprofitable for the community, then the change is considered a setback¹⁶. For example, using a cellular phone as a means of communication. On the one hand it simplifies and shortens the distance, on the other hand reduces physical communication and direct socialization. So that technology has the impact of reducing direct contact and socialization between humans or individuals.

Society itself is defined as the unity of human life that interacts according to a certain system of customs that is continuous and bound by a sense of shared identity¹⁷. Meanwhile, rural communities are characterized by several special characteristics. According to (Martono, 2012), rural communities have closer and deeper relationships, their life system is usually grouped on the basis of a kinship system and generally lives from agriculture¹⁸. Communities in rural areas are not spared from the existing social changes. Village communities change due to clashes between the joints of rural communities, namely when the influence of other cultures comes in. According to Salim (2014) the social changes that occur in rural areas are not only in patterns of social relations, but also changes in the structure of language¹⁹. There are three factors that cause changes in rural communities, namely biological, technological, and cultural factors. Technological factors, namely in society, especially people who have experienced progress, sometimes social changes that occur run fast. This is because the process of change is through technological developments resulting from inventions, the creation of new forms, and through the diffusion process²⁰.

Communication and information technology has changed the way humans communicate which is no longer limited by space and time between each other.

¹⁶ *Ibid.*

¹⁷ Eliyana Koyimah, “Hubungan Perhatian Orang Tua Dengan Hasil Belajarips Pada Siswa Kelas V Sdn Digugus Ki Hajar Dewantara Kabupaten Semarang” (2016): 1–173.

¹⁸ Michael Yao-Ping Peng et al., “Multi-Engagement, Learning Approach and Student Learning Outcomes: Evidence from Taiwanese Private University,” *Universal Journal of Educational Research* 5, no. 7 (2017): 1137–1144.

¹⁹ Detlor et al., “Factors Affecting Student Learning Outcomes of Information Literacy Instruction.”

²⁰ *Ibid.*



Communication can not only be done directly or face to face but also through technological intermediaries. This is what Walther (in Griffin, 2009) calls communication mediated by a computer or the internet. Internet-mediated communication such as through new media also forms a network between users²¹. This research was conducted to represent two important things, namely about the use of ICT including cellular phones (smartphones) and the internet in rural communities and the second thing about changes in rural communities due to the use of ICT. The aspect of social change referred to in this study is social welfare and social ties in the village community.

Research Methods

Research Methods The research method used in this study is observation with a qualitative approach. Qualitative research according to Denzin and Lincoln (in Moleong, 2012) is research using a scientific background and involves various methods such as interviews, observations, and use of documents. The purpose of this research is to interpret the phenomena that occur²². While Moleong (2012) defines qualitative research as research that does not use statistical analysis procedures or other quantification methods²³. This qualitative research is formed with words, a holistic and complex picture. The study was conducted in Sungai Sirah Village, Padang Pariaman Regency. The selection of Padang Pariaman Regency is because this district is still very thick with local cultural customs and every year the people still celebrate traditional parties.

The selected village is one village from among other villages that have homogeneous characteristics in Padang Pariaman Regency. Meanwhile, the reason for choosing Sungai Sirah Village is because the location of this village is not far from Padang Pariaman City, the district capital, so that access to the use of

²¹ 49–58. Rao, U., Birmaher, B., Kaufman, J., Ryan, N. D., & Brent, D. A. (2007). K-Sads-Pl. Children (K-SADS), 39(1996)

²² Peng et al., “Multi-Engagement, Learning Approach and Student Learning Outcomes: Evidence from Taiwanese Private University.”

ICT is also considered good. Data Collection Techniques and Sources The data sources of this study include primary and secondary data. Primary data is data obtained directly from the main sources, namely core informants, triangulation, and observations (Sugiyono, 2011)²⁴. While secondary data as supporting data is obtained from various existing sources such as books, journals, websites, media and so on. Data collection techniques in this study include observation or direct observation in the field. Observation is a complex process and the process is composed of various biological and psychological processes (Sutrisno, 2012)²⁵. Meanwhile, other data were obtained from interviews with people who were directly involved in this research (key informants). The informants in the villages interviewed were village heads/community leaders, religious leaders, school principals /computer teachers, heads of communities/farmers/fishermen groups, youth youth organizations and communication and ICT experts. Methods of Data Analysis The data obtained through interviews, field notes, and documentation were then compiled by organizing the data into categories, describing and then explaining in a description. The validity of the data in this study uses a triangulation technique, namely a technique for checking the validity of the data that utilizes something other than the data for checking purposes or as a comparison against the data²⁶.

Research Results and Discussion

Padang Pariaman Regency has a capital named Pariaman with a population of 88,984 people. The distance of Padang Pariaman Regency is 66.13 km from the provincial capital of Padang Pariaman Regency and is located on the west coast. Padang Pariaman is a district in West Sumatra Province, Indonesia. This district has an area of 1,328.79 km² and a population of 430,626 people (Population Census 2020)²⁷. This district has the motto Saiyo sakato.[1] The

²⁶ Peng et al., “Multi-Engagement, Learning Approach and Student Learning Outcomes: Evidence from Taiwanese Private University.”



capital city of Padang Pariaman Regency is Parit Malintang. Based on Government Regulation (PP) No. 79 of 2008 dated December 30, 2008 regarding the relocation of the capital city of Padang Pariaman Regency from Kota Pariaman to Nagari Parit Malintang in Six Lingkung District. The astronomical position of Padang Pariaman Regency is located between $0^{\circ}11' - 0^{\circ}49'$ South Latitude and $98^{\circ}36' - 100^{\circ}28'$ East Longitude, with an area of about 1,328.79 km² and a coastline length of 60.50 km². The land area of this area is equivalent to 3.15 percent of the land area of the province of West Sumatra.

The air temperature ranges from 24.4 °C – 25.7 °C, so the average maximum temperature is 31.08 °C and the minimum average temperature is 21.34 °C, with a relative humidity of 86.75%. The overall average rainfall for Kabupaten Padang Pariaman in 2007 was 368.4 mm, with an average rainy day of 19 days per month and an average wind speed of 2.14 knots/hour. Padang Pariaman is the district with the smallest area in West Sumatra, which is 1,328.79 km². Whereas previously this district had the largest area in West Sumatra (known as Piaman Laweh or Pariaman Luas), before the expansion of Padang City in 1980 to include part of this district, and the expansion of the Mentawai Islands Regency in 1999 and Pariaman City in 1999. 2002. The topography of the district of Padang Pariaman includes a large tropical climate which has a very short dry season and the ocean area is strongly influenced by sea breezes. The hottest air temperature falls in May, while the lowest temperature is in September. Judging from the topography of the area, Padang Pariaman Regency consists of a land area on the mainland of Sumatra Island and 6 small islands, with 40% of the low land in the west leading to the coast. The lowland area is located in the west which stretches along the coast with an altitude between 0-10 meters above sea level, and 60% of the eastern part which is a undulating area to Bukit Barisan. The undulating hill area is located in the east with an altitude of 10-1000 meters above sea level.

Padang Pariaman Regency is rich in artistic and cultural performances that are mixed with religion. This attitude shows that religion for the Minang tribe

cannot be separated in everyday life (Mabrursyah, 2016). Although strongly adhered to customs and religion, Padang Pariaman Regency also cannot avoid the progress and use of ICT, especially in villages including Sungai Sirah Village. One of the officials from Sungai Sirah Village, M. Yatim, explained that the majority of villagers use cell phones to communicate, both calling and sending messages (SMS) to fellow residents. However, direct communication is still being carried out, because there are residents who also do not have the equipment. In addition, information is also conveyed through announcements through mosques and distributing invitations to residents if there are activities at the village hall. Meanwhile, an elementary school teacher in Sungai Sirah Village, M. Sikun, said that the teachers at the school where he taught had used ICT, because of the administrative work system they had to do. Dika Agustina, who is the administrator of the Youth Karang Taruna in Sungai Sirah Village, also admitted that in her village internet usage is still very rare due to the inadequate network plus the price of data packages which are considered expensive. However, according to Dika, other ICT devices such as computers, laptops and tablets have been used to carry out youth activities in the village. According to Dika, the majority of youths use smartphones to disseminate information on youth activities. The majority of the residents of Sungai Sirah Village have their main jobs as farmers and ranchers. In this village also formed groups of farmers and ranchers. One of the Chairpersons of the Women's Farmers Group (KTW) of Sungai Sirah Village, Rukiyah explained that in their group almost all members already use cellular phones, although most of them are 2G. The purpose of its use is to communicate in groups.

Although the use of the internet is still very limited by only a few members of the farmer group, Rukiyah explained that the information obtained from the internet is very important and useful for the development of farming in Sungai Sirah Village such as pest management, how to grow crops and so on. The information obtained from the internet is often shared and communicated to fellow group members and is also assisted by agricultural extension workers. What was revealed from this study, that online groups such as groups on



Whatsapp (WA) according to group goals have not been formed much. This is due to limited internet access because it is still very rarely used by rural communities. Rukiyah herself admitted that in the farmer group she leads, there is no WA group at all. Meanwhile, Dika explained that the management of the village youth group has an online group on BBM. This makes communication easier because all members join the group. But if there are youth activities, information is also often conveyed through short messages and also direct distribution of invitations. When asked about ICT which can provide social change to the lives of farming communities in villages, especially in terms of social welfare, Rukiyah explained that it is still limited to easy access and dissemination of information needed by farmers.

Meanwhile, marketing of agricultural products online (e-commerce) has never been done. Sales are still manually or directly to toke-toke (Chinese merchants) in the market. The presence of ICT has also made direct or face-to-face communication rarely done, especially in big cities. People prefer to communicate through cellular phones because it is easier, more accessible and saves time and energy. However, for the people of Suka Maju Village, direct or face-to-face communication still dominates all communication activities in the village. As stated by Dika Agustina. Aspects of direct social ties are still well established. Almost all of the informants also agreed that the use of ICT had an impact on the village community. Several aspects of social life have changed, such as community welfare, community empowerment and communication patterns. M. Yatim admitted that the use of ICT made the village community more aware of information. Likewise with village officials, it is easier and faster to disseminate information. This includes providing information for farmers such as coffee prices, fertilizers and also about assistance for harvesting coffee, as well as other information. The same opinion was also conveyed by Dika Agustina. According to him, the impact of using ICT is very good, information and communication become faster and more efficient. As is known, the use of ICT can make social change in society. Because it does not only have a positive impact,

but also a negative impact that needs to be watched out for by the village community as well.

Moreover, Sungai Sirah Village is known as a very religious village. The religious leader of Sungai Sirah Village, M. Wazir, assessed that in his village, the impact of using ICT in a negative direction has not yet occurred, and is mostly used positively. This is because as a religious leader in the village, it is his duty to also encourage children, especially to use cell phones positively, for example for learning at school. This includes not simply believing and being influenced by the amount of information obtained from online media about certain teachings that undermine the trust structure of the Sungai Sirah Village community. The same thing was also conveyed by Dika and M. Yatim. According to Dika, the negative and positive effects of using ICT depend on each individual. If used positively, it will have a positive impact and vice versa. Meanwhile, according to M. Yatim about the negative effects of using ICT, it goes back to each individual user. It is the user's control that should sort out what is good and what is not. However, it is different from what was conveyed by the SD Negeri Sungai Sirah teacher, M. Sikun. According to him, he had found students who had sexually deviated in class due to their frequent viewing of pornographic films on the internet. Because of that, his party strives to continue to provide understanding to students when they are in the school environment, about negative and positive content that can be obtained from the internet.

They are also prohibited from bringing cell phones to school. It's just that according to Sikun, if students are outside school, it becomes difficult to control. However, the school as an educational institution still strives to provide maximum education to students in schools about the use of ICT. Although it is recognized that the school does not yet have a special program for it, so that ethics learning is still inserted on the sidelines of formal learning. One of the goals of using ICT is to improve the social welfare of the community. This can be seen from the community's use of ICT in a more productive direction. The results showed that ICT, especially in rural areas (Desa Sungai Sirah) such as cellular phones, computers, laptops and the internet were still used for general things such as



communicating (telephoning/receiving calls), doing schoolwork/work and looking for information as needed. villagers. Responding to this, communication and ICT expert, Josep Darmawan said that the development and use of ICT, including in villages, has been quite good so far, and can meet the communication needs of the community. However, Josep emphasized that it is still necessary to increase the availability of ICT and also change the mindset of the village community to support increasing community activities and capacities. Because generally the use of ICT in Indonesia is widely used as a filler for spare time, for example entertainment. Meanwhile, activities such as e-commerce (online buying and selling) that can improve the welfare of the community from the seller's and buyer's side are still very low in this village.

Even though the people of Sungai Sirah Village, whose majority of the population work as farmers and breeders, it is proper that they should take advantage of this activity to sell their products or buy products according to their work needs more easily. It turns out that very few farmers use the internet to find information related to their work such as pest management, how to grow crops and others, due to limited infrastructure and data packages which they feel are still very expensive and their lack of skills. Responding to this, according to Josep, the materialistic welfare of the community will be achieved, one of them by using ICT. It can also generate additional income if associated with SMEs. It's all about competition. Competition built to win the economy. The results of this study also reveal that informants are generally not too worried about the impact of using ICT. According to them, although the use of ICT is increasing and rural communities can also access negative content at any time, the norms that are built in the village are still firmly held by the local community. However, several informants still considered that the filter and anticipation of the tendency of the negative impact of the use of ICT still had to be prepared, especially in schools. Josep also argues that the use of ICT can be said to amplify the damage. So that people need to get used to building thoughts that make them ready and have the capacity, including filtering, predicting, responding to anything that makes people

safer, more peaceful and prosperous. Things that are interesting to discuss from the results of this study are that the Sungai Sirah Village community uses ICT according to the benefits and abilities of using it.

This is also in accordance with the Technology Acceptance Model (TAM) which states that user acceptance of ICT involves two individual beliefs, namely the perception of usefulness and the perception of ease of use. This is also reinforced by the results of research conducted by Hambali et al which states that ICT will be considered useful if the community has the ability, desire and trust to use it²⁸. The development of ICT also has an impact on social change to the community, including in the village. Sungai Sirah Village also experienced the same thing, there were social changes in terms of communication patterns, social welfare such as being able to get additional information to support their welfare as farmers and ranchers as well as village officials, teachers/students and youth youth groups. This is also in accordance with what was stated by McLuhan (2006) that 'the media is the message' and has a very strong influence. This is what is also called that the world that is so wide will become a global village, where the world will eventually become a village where people are very easy to relate to because of the help of ICT. ICT will also have an influence on human movement and behavior²⁹. Changes that occur in society are called social changes, where these changes cannot be separated from the consequences of community social interactions.

Gillin (2006) states that social change is a variation of accepted ways of life that causes changes in conditions such as ideological matters and also because of diffusion and new discoveries in society. Social changes in the community, especially in terms of the use of ICT, also occurred in the people of Sungai Sirah Village, which is known for its area that is thick with customs and religion. This social change occurs because they feel that ICT can simplify the way they

²⁸ K Fee, *Delivering E-Learning, A Complete Strategy for Design, Application*, 2009, http://samples.sainsburysebooks.co.uk/9780749457310_sample_128957.pdf.

²⁹ Widia Hapnita et al., “Faktor Internal Dan Eksternal Yang Dominan Mempengaruhi Hasil Belajar Menggambar Dengan Perangkat Lunak Siswa Kelas Xi Teknik Gambar Bangunan Smk N 1 Padang Tahun 2016/2017,” *CIVED (Journal of Civil Engineering and Vocational Education)* 5, no. 1 (2018).



communicate, socialize and also the need for information that can support their lives. This desire to use ICT is not only based on increasing knowledge but also on following trends. According to Ayatrohaedi (in Widowati, 2014) no one can prevent changes that occur in society, even customs cannot do much to deal with changes that occur in society. Often, adat only applies regulations but is unable to act in overcoming the progress of the times and technology. In a study conducted by widia on the social changes of the Baduy tribe due to the use of ICT, it is also explained that social change is legal to occur in society, including isolated communities such as the Baduy community, but should the change occur without violating the rules, because it happens at the will of the community. community or coercive conditions so that tolerance arises from traditional leaders to address changes that occur in society³⁰.

As previously explained, in Sungai Sirah Village, which is known for its area that is thick with customs and religion, this does not make the village community antipathy to changes, especially in terms of the use of ICT. This is the same as the results of research conducted by Juditha & Darmawan which states that the norms, customs and culture adopted by the village community are the main things. But these factors are not the main obstacle in the process of adopting ICT³¹. On the contrary, the use of ICT will further assist village community business processes such as marketing their products outside the village as well as introducing culture to the public. So far, it can be said that the village is also greatly influenced by the development of ICT. Therefore, the formulation and development of ICT policies and strategies is also an important issue for developing countries. But the important thing is that the development of ICT has both positive and negative effects on society and the utilization of its benefits

³⁰ Widia; Rijal Abdullah; Yuwalitas Gusmareta; Fahmi Rizal Hapnita, "Faktor Internal Dan Eksternal Yang Dominan Mempengaruhi Hasil Belajar Menggambar Dengan Perangkat Lunak Siswa Kelas XI Teknik Gambar Bangunan SMK N 1 Padang Tahun 2016/2017," *Cived Jurusan Teknik Sipil* 5, no. 1 (2018): 2175–2182, file:///D:/PROJECT TAHUN 2020/ALL DAFTAR PUSTAKA/9941-20038-1-SM.pdf.

³¹ Megan A.Yih Chyn Kek, I. Gusti Ngurah Darmawan, and Yu Sui Chen, "Family, Learning Environments, Learning Approaches, and Student Outcomes in a Malaysian Private University," *International Education Journal* 8, no. 2 (2007): 318–336.

depends on the capabilities of its users (Noori, 2003). Rural areas are areas that require the development of information technology. Moreover, currently one of the government's policy priorities is village development as stated in the PDDT Village Regulation 17 of 2019 concerning General Guidelines for Village Community Development and Empowerment. The development of this village community is stated in the priority of using village funds which are prioritized to finance the implementation of programs and activities in the field of basic social services that have a direct impact on improving the quality of life of the community, one of which is in the field of information and communication. ICT in rural areas is also one of the solutions to gradually remove traditional barriers to development by increasing access to information, expanding markets, increasing job opportunities and better access to government services.

Closing

Most of the people in Sungai Sirah Village, Padang Pariaman Regency already use ICT devices (cellular phones). These cellular phones are mostly 2G types used by older people, while smartphones are mostly used by young people. Meanwhile, other ICT devices such as computers and laptops are still used by certain groups, such as village officials, youth youth organizations and teachers and students according to their needs. The internet itself is still very limited in use by the villagers due to limited access/network, expensive data packages and lack of skills. ICT is also used only to communicate, find/disseminate information, and make work easier. Meanwhile, activities such as e-commerce (online buying and selling) that can improve the welfare of the community from the seller's and buyer's point of view still do not exist. While the aspects of individual social ties in the study include the need to communicate more often to encourage people to use ICT, as well as the opportunity to participate in diverse groups such as farmer groups and youth organizations.

However, the village community still communicates directly/face to face with friends, family and communities in the village. Even using ICT devices, especially cellphones, does not have much effect on face-to-face communication.



Gatherings and notification of important information are still carried out directly or through community activities. Village communities are also not too worried about changes in village community values due to the impact of using ICT. Although the use of ICT is increasing and rural communities can also access negative content at any time, the norms that are built in the village are still firmly held by the local community. However, filters and anticipation of the tendency of negative impacts from the use of ICT still have to be prepared, especially in schools. Suggestions Recommendations from this research are that the government and the private sector need to optimize the development of internet network technology infrastructure in remote villages such as Suka Come Village to accelerate the adoption of ICT use for local communities, especially farmers and ranchers. Besides that, it is also necessary to empower young people (agents of change) to train various skills in using internet-based ICT productively for farming communities, farmers in underdeveloped villages, by utilizing social media as a means of marketing superior products in the village concerned. Optimizing literacy programs for healthy and safe internet usage for people in villages to anticipate the rampant access to various negative content in cyberspace for all groups. Optimizing mentoring programs through sustainable community HR development management training to encourage the growth and development of superior commodity productivity in the village in order to improve the economic welfare of the community independently in accordance with the typology of the village.

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