

# Digital Culture Towards Information Society (Case Study of Collaboration Between CIG and ICT Volunteers)

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**Abstract**— According to the agreement of The World Summit on the Information Society (WSIS), Indonesian government encourages community empowerment through the mastery of information and communication technology (ICT) skills. The partnership was developed between Community Information Group (CIG) and Information and Communication Technology Volunteer (ICT Volunteer) to carry out digital literacy to create a superior society. Superior society is skilled in utilizing ICT as a form of sustainable development towards a prosperous society. This study was aimed at finding the activities of CIG and ICT Volunteers to pursue digital literacy towards the Indonesian information communities. This research used information society theory, with an interpretive approach. The research method used was in the form of case study. The research resulted in that an information society was built based on Indonesian local values like harmonious (guyub), voluntary (sukarela) and sincere (ikhlas). The model of digital culture through collaboration between CIG and ICT Volunteers showed that a change in people's lives, especially in the use of information that has economic value. The digital technology is used as an effort to improve the welfare of people's lives. The society is increasingly aware of the importance of using the digital technology in improving welfare.

**Keywords**— *digital culture, CIG, ICT volunteer, information society*

## I. INTRODUCTION

At present, ICT plays an important role and becomes a part of people's lives. Through ICT, people are able to increase knowledge through access to related information, and provide added value in their lives. In order to build an information society, an environment must be formed that can empower the community's capabilities related to information technology. So that the community is actively involved in ICT-based development. Communities must be positioned as objects as well as subjects in sustainable development, thus encouraging them to always be creative in the use of ICT. Fuchs said that in the realm of information and communication technologies (ICTs), the sustainability concept has played a role in the context of the World Summit on the Information Society (WSIS) [1]. However, the gap in the use of digital technology is still experience by several developing countries, including Indonesia which is demographically an island nation. Utilization of infrastructure is often becoming obstacles related to

demographic and geographic area of a country. The use of digital technology is able to overcome space and time, and accelerate global boundaries. According to Douglas (cited by Hadi) relations between villages and cities are becoming less distance when the flow of people, production, commodities, capital, and information structures that exist in villages are the same as those in cities [2]. With digital technology, access barriers which connecting between villages and cities have become easier. Information is become an important part in building a sustainable country's economy. Ida Nuraini Dewi K.N said that technology makes people need all the information related to various problems that occur in their lives, especially the local environment where their lives [3].

As the result of WSIS the commitment and involvement of civil society is equality important in creating an equitable information society, and in implementing ICT related initiatives for development [4]. Aristovnik said that widespread use of the information and communication technology (ICT) and also the Internet and the Word Wide Web (WWW) have led to the development of what is often referred to as the information society [5]. Information Society is interpreted differently, according to Webster to define the information society it takes five criteria, namely technological, economic, occupational, spatial and cultural [6]. Discussion of the information society is inseparable from the term information itself, in modern thought, information society is considered as a necessity, because with the presence of ICT-based information can eliminate the temporal, spatial, and social distance that was once an obstacle. So the main focus is information [7].

Various symbols of communication are exchanged by various parties in order to share information, which can strengthen social, economic, and cultural development in the community. Castells said that symbolic communication between human beings, humans and their environment based on the creation of meaning, sharing experiences, power, which strengthens from one generation to the next which creates a culture as a shared identity [8]. Therefore, the success of an information society development program is largely determined by community participation. With this participation, the community is expected to be able to manage their environment independently and collectively, so that a vision for future development is formed. Participation is meant by the existence of technology, resources, organization, and community skills that are possible to be

involved in designing and managing their own social systems and to be able to develop a shared vision for a better future so that the design of social systems must be able to encourage the growth of people's intelligence [9].

Building information society in developing countries is a necessity, so it requires public awareness about the information itself. According to Buckland, the discussion of information is divided into 3 (three), namely: (1) information as knowledge, meaning the knowledge imparted; (2) information as process, the process of becoming informed; (3) information as thing, denoting bits, bytes, book, and other physical media [10]. In effect, this, the most common use of the word, includes any material thing or physical action perceived as signifying. In this third understanding, information has synonyms or words that are similar to understand documents in a widemeaning. Therefor information is not only interpreted in physical form, but information has an unlimitedwide meaning to understanding as a document. For that it takes a deep knowledge of the information. Knowledge is created when information is integrated into the mind so that with such knowledge, it is able to adapt in various conditions and can use the knowledge to analyze and solve Problems encountered. Knowledge will appear when people are able to change information in ascertain ways [11]. According to Czaja that knowledge is a form of innovation and is fundamental to various businesses that needs courage [12]. Knowledge also demonstrates thecompetitiveness. Therefore, knowledge must have an innovative competitiveness value.

The classical definition of Sir Edward Tylor (1871), Buckland said that the culture or civilization, ethnographically, has a wide meaning, namely the whole complex of things that include knowledge, beliefs, art, moral, law, customs, and various other things related to the abilities and habits of human beings as part of a particular community [10]. This gives awareness to the public of the importance of using technology to increase knowledge. Growing awareness must be adjusted to the culture of the community as a local cultural art, which will provide encouragement for them to adopt various changes that exist. Culture contributes to building an information society, Dzyatkovskaya and Mamchenko said that the development of the information society contributes to the formation of a new ecological culture, and the ecological culture provides meanings and sustainability for information society [13]. The ecological culture provides meanings and sustainability for information society.

Culture is built according to the environment in which the community lives. When the problems of mental and material access have been solved, wholly or partly, the problems of structurally different skills and uses become more operative [14]. Furthermore Van Deursen and Van Dijk said to improve capabilities in ICT skills are needed : (1) Operational internet skills, (2) Formal internet skills, (3) Information internet skills, (4) Strategic internet skills [15]. So that community skills must be improved to be able to utilize the available information, therefor the information is economically useful. Thus, the recognition for the importance of knowledge and codification includes an increase in the demands of ' workers who have knowledge ' with high status: Specialists who understand how to design, implement, and Work with data, knowledge, information

systems, simulations, and other ICT-based engineering capabilities [16].

## II. METHODOLOGY

This research uses the descriptive method with case study, emphasizing the observation of an activity CIG and ICT Volunteer in Indonesia. Focus of this research is various activities performed CIG and ICT Volunteer related to the management and development of communities used to ICT. We observed individuals and groups of CIG, ICT Volunteer and communities as those who manage an organizations. The techniques used in this research were documentation, archive studies, in-depth interview, direct observation and participant observation [17]. The informants in this research were the members of CIG, members of ICT Volunteer, and Indonesian government (Ministry of Communication and Information of the Republic of Indonesia).

Data analysis techniques used in this research refer to Miles & Huberman [18], stating that data analysis consists of three interrelated sub-processes, namely data reduction, data presentation, and conclusion drawing (verification). While the data validity method in this study uses triangulation, checking the data by utilizing something outside the existing data as a comparison to the data. In this study, we checked the data through other data sources. According to Yardley [19], the triangulation principle derives from navigation where the connection of three different reference arguments is used to compute the exact position of an entity. The principle affects the objective of looking for at least three ways of confirming or validating a particular occurrence, explanation, or fact being conveyed by research. This justification provides a solution for reinforcing the validity of the research. In this study, we used source triangulation, i.e., cross-check which was explored from several informant groups. Triangulation was performed by conducting interviews with several informants involved in the management and development of CIG and ICT Volunteer.

## III. RESULT AND DISCUSSION

### A. Community Information Group (CIG)

Dissemination of information in Indonesia has its own challenges because of the unique state of the region, which is located between the ocean and the islands. This causes that it takes an art in the process of disseminating information from and for the community, both at the regional and central levels. The formation of the Community Information Group (CIG) means is one way to overcome obstacles in community empowerment in the information field. Through CIG, the community is expected to be able to share information while at the same time making use of this information, thus providing benefits for each of its members. The empowerment of CIG will open opportunities in terms of collaboration with partners for business development in various fields. Various CIG activities are driven by management and utilization of ICT-based information. CIG is formed by the community, from and for the community, so that the community in its implementation can independently and creatively manage and utilize information.

According to Kominfo RI [20], the number of CIGs in Indonesia up to 2015 amounted to 4,475 spread across various regions of Indonesia with a variety of activities that

carried out. The pattern of management in community empowerment has an important meaning for the community itself, namely as a facilitator for the community, partners of the Regional and Central Governments, absorbers and distributors of community aspirations, managers of information flow at the community level, and a vehicle for information for the community. In its activities, activities undertaken by CIG include: (1) Access to Information, brainstorming activities among CIG members in the context of discussing the information needed and perceived benefits by the community at a certain time, (2) Discussion, between CIG members to obtain input related to problems issues faced by the community, (3) Implementation, applying various information that has been received so that the knowledge and welfare of the community increases, (4) Networking, establishing partnerships with various parties, both Government and Private to find solutions to problems faced by the community, (5) Disseminating information, disseminating information obtained from various parties to CIG members and the community, (6) Advocating for aspirations, assisting the community so that community aspirations can be received by related parties or voicing the aspirations of the community so any problems can be resolved immediately.

In its development, the need for human resources involved in CIG has to continue to be increased, especially in the use of ICT. In today's digital era, the involvement of CIG as a government partner in information management is increasingly needed. The demand for the realization of the information community as an agreement, increasingly shows the function of CIG in ICT-based society. The development of digital technology is very fast, so it must be balanced with the availability of human resources who have skills in the field of ICT. Nevertheless, for people who do not use ICT-based media, it is not necessarily abandoned. Assistance will continue to be carried out with a view to improving the quality and quantity of community skills in accessing and disseminating ICT-based information. Various activities will be carried out, such as: seminars, workshops, and other activities aimed at increasing the capacity and capability of CIG and the community. The awareness and willingness of the people independently will encourage increased welfare. Various business products managed by CIG are increasingly recognized by the wider community, thus contributing to the economic contribution of all its members. Society not only has the ability of socially, but also in terms of the economy is able to develop the business world independently. ICT contributes to the acceleration of community empowerment in the field of information that has economic value.

Digital culture is an inseparable part of realizing information society. The community voluntarily engages in various CIG activities by utilizing ICT, able to create creativity in various fields. Although ICT-based, but does not leave the values of existing cultural diversity. Voluntarily the community joins the CIG, even the costs became joint responsibility. The feeling in the same boat makes the relationship with each other closer and more solid in finding a way out of every problem. Helping the public in the dissemination of information is believed to be a form of religious deeds. In carrying out various stages of information dissemination, CIG develops according to the needs and abilities of the community. The diversity that exists

contributes to fostering community innovation and creativity. This will be the key to the success of CIG management in each region, as mandated by WSIS in realizing the world's information society.

#### *B. Communication Technology Volunteer (ICT Volunteer)*

Besides using CIG for information society development, it is also carried out with the formation of ICT Volunteers. Based on the scope, ICT Volunteer is divided into three levels, with separate objectives in each level. There are : (1) Internal (micro), with the aim of: preparing members in the mastery of individual knowledge, attitudes and skills, as well as group collaboration to carry out social education, empowerment, and incidental education tasks; (2) Organizational (meso), with the aim of: making ICT Volunteer as a unit capable of reacting intelligently, responsive, moving fast, and acting carefully in carrying out their duties; (3) National (macro), with the aim of: contributing and participating in various development activities, community, and playing a role in humanitarian tasks, by optimizing the use of ICT for the benefit of society and the progress of Indonesian people.

Information as the main capital in developing economic resources is the key to ICT in its activities. The success of an activity can be seen from the technique of settings and controlling information through ICT. ICT Volunteer provides various education to the community in the development process, especially by utilizing ICT. The role of ICT Volunteers, including: (1) Provision of Information: seeking information, and producing local content according to community needs in various formats; (2) Human Resource Development: organizing various training both offline and online for ICT Volunteers and users, in obtaining competitive advantages; (3) ICT Resource Development: identifying, creating free and open source software based networks, overcoming technical problems related to ICT use, and building networks with partners; (4) Collaborating: collaborating with various parties and facilitating marginalized communities and disabilities, in the use of ICT.

Through these various activities, the public is expected as soon as possible to be able to utilize ICT to gain access to information. These activities is done to encourage community activities to be more optimal, especially in the utilization of ICT-based resources. Cooperation, coordination, and collaboration continue to be carried out for sustainable development, by encouraging gender alignments, minority groups, and the use of environmentally friendly technologies. For this reason, Volunteer ICT cadres should be prepared as the next generation of development and national fighters. Until 2018, the number of ICT Volunteer members is 5,000 and 200 of the legality of the Management Decree have been issued. Cooperation is carried out with the Government as a partner in making regulations in the field of ICT. As a virtual organization, ICT Volunteer develops a variety of activities, such as: Digital literacy for educational institutions and the community, mentoring for village communities, SMEs going online, digital guides (scouts), competency tests for ICT Volunteers and the community. For the blind ICT community, training is carried out , so that the community can independently empower themselves. The public can choose information that has economic value for business development in order to encourage people's welfare. For common people, an introduction to ICT is carried out,

while those who already have businesses are directed at developing ICT-based businesses.

Volunteer ICT is also involved in Village Internet Stalls (Wardes), with objectives for village's community : (1) Get to know and learn about computers and the internet; (2) Enriching information, data, and facts from various events; (3) Expanding the insight and knowledge ; (4) Connecting friends and relatives from all over the world; (5) Increase the power of thought and the ability to critically examine. Thus, Wardes can be used as one of the media that is able to encourage public awareness of the importance of ICT in increasing community knowledge and business opportunities. As an alternative, Wardes can shape the digital culture of society, which in turn realizes an ICT-based global society. Of course, in various activities still prioritize local values of the surrounding community. The development of ICT is adjusted to the needs and available resources.

In carrying out its activities, ICT Volunteer always prioritizes local values, it can be said to be a generally accepted value in Indonesian society, namely "unity" which means "always maintaining harmony with each other. The community voluntarily works as volunteers in the field of ICT without expecting payment. ICT Volunteer is a militant group in empowering ICT-based communities. This is what drives the acceleration of ICT-based innovation adoption. Members of the ICT Volunteer are the people themselves, making it easier to coordinate various activities. This volunteer spirit is the basis for members to survive as movers and developers of ICT-based creativity. The sense of unity in harmony makes the relationship very strong, not only limited to the problem of developing activities, but all issues that concern the common interests of the community. Encouraging an empowered environment is a necessity in the process of applying digital culture. People have an inner awareness to make their lives better. By applying these values, ICT Volunteer won awards from the United Nations at the WSIS prizes in 2018 and 2019.

C. CIG and ICT Volunteer Towards the Information Society

CIG and ICT Volunteer are the front line at grassroots level in the utilization of ICT-based information. Although CIG is more common in media use, it does not mean that they do not use ICT at all. The use of information media is adjusted to the situation and condition of the community, both the choice of media and content to be delivered. Whereas ICT Volunteer places more emphasis on the use of digital media in its activities. However, both fundamentally encourage the realization of the information society. Some CIG members also become ICT Volunteer members, and conversely. Although both have different ways of working, but the main goal is the same, namely the empowerment of information for the community. As an organization, both communities are able to move public awareness of the importance of information in order to encourage welfare.

The results showed that the digital culture of Indonesian people still needed to be strengthened in order to realize the information society. Through CIG (Community Information Group) and Volunteer ICT (Information Communication and Technology), it is expected that the public will have an understanding of the importance of utilizing communication technology in various ICT fields, by not abandoning the values of existing local wisdom. In general, the information

society development process carried out by CIG and ICT Volunteer, can be described as follows:

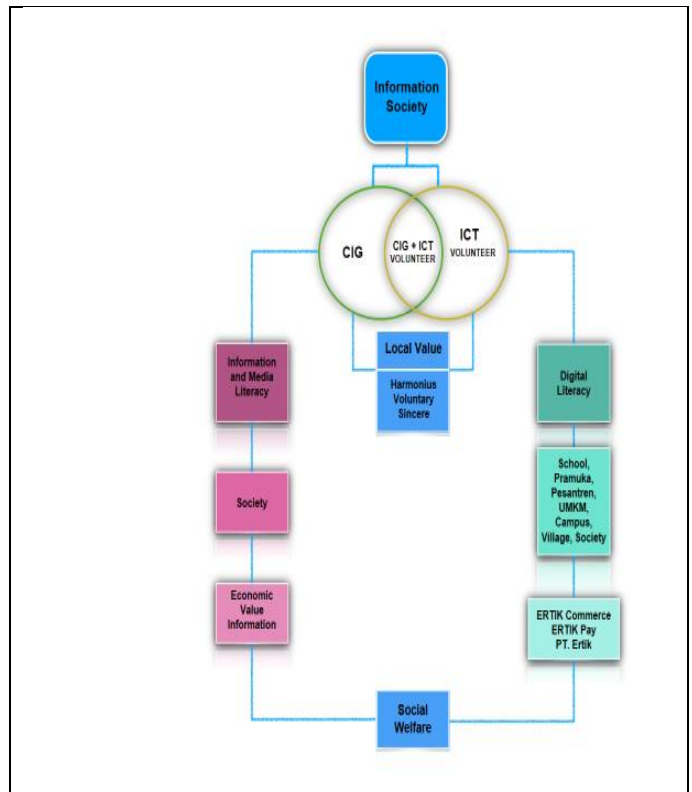


Fig. 1. Information Society Development Process through CIG and ICT Volunteer

IV. CONCLUSION

Based on the research's results, it can be concluded that one way to realize the information society in Indonesia is by establishing CIG and ICT Volunteers. This is done to encourage the acceleration of the process of ICT adoption of communities throughout the territory of Indonesia, which is spread in various regions, both City and Village. The formation of CIG and ICT Volunteer contributes in the process of access to information to the utilization of ICT-based information. Information is processed and managed so that it has economic value for the community. Access and connectivity of communications as well as ICT-based applications and content as one of the strategies to reduce poverty by encouraging the community to manage various fields of business. CIG and ICT Volunteer activities are clearly able to raise public awareness of the importance of ICT in the process of sustainable development.

In the work process, both CIG and ICT Volunteer prioritize local values that develop in each of its outreach areas. Harmony as the philosophy of life of the Indonesian people is able to unite differences in interests, ethnicity, race and religion. Each member making efforts voluntarily to develop the community in their region with sincerity. Militant attitude that has develop to support every activity. One another works hand in hand to support the welfare of the community in general, and its members in particular. Every member has pride, both as a member of CIG and ICT Volunteer.

The government and other stakeholders as partners provide support in the form of guidance and assistance for each activity undertaken by CIG and ICT Volunteers. In addition, it also builds multipurpose and sustainable public access with costs that affordable for the public, especially rural areas. Internet connectivity has been utilized in various fields of development, both in the fields of economic, health, education, security, and even inheritance of cultural values.

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