

Literacy with Information and Communication Technology to Optimize Services for Persons with Disabilities in the Church

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Abstract—Digital era shall be employed by the church in holistic ministry. This ministry includes reaching persons with disabilities. Like Jesus who paid attention to those who were weak (deaf, blind, lame). This study uses a qualitative study of literature. The sources used the Bible, RI Law No. 8 of 2016 on persons with disabilities, journals, books, and news websites with the theme of technology and disabilities. The research uncovered that the churches are required to identify literacy with information and communication technology to provide optimal service to persons with disabilities. Persons with disabilities are then able to participate in community life self-sufficiently and be involved in all church ministry independently as well. **Research Contribution:** There is no preceding research that discusses the importance of ICT literacy in the churches for inclusive disability ministry. This research elucidates the importance of literacy with information and communication technology that the church requires to conduct a full service to persons with disabilities. Literacy shall be in the form of direct planting of ICT knowledge, as well as application of ICT in the range of the church.

Keywords—ICT literacy; disability; church ministry

I. INTRODUCTION

Every May 20, Indonesian people commemorate National Awakening Day. In 2021 The commemoration of the National Awakening was marked by the launch of the National Digital Literacy (LDN) program [1]. The program is aimed at building public awareness and knowledge about digital technology. In addition, it also aims to improve the digital skills of Indonesian

people in order to create a safe, ethical, and productive digital space [1]. The goal of digital literacy is to accelerate the national digital transformation [2]. Until 2024, the government is targeting fifty million Indonesians to have digital literacy and digital competence. Efforts are made by providing skills training and increasing competence in digital to the wider community. This digital literacy module and curriculum targets four digital literacy, as follows: 1) *digital ethics*; 2) *digital safety*; 3) *digital skills*; 4) *digital culture* [3]. In addition to the launch of the LDN program, the Ministry of Communication and Information Technology also organizes the Digital Talent Scholarship (DTS) Program. Through this program, the Ministry of Communication and Information Technology provides 100,000 non-degree training scholarships every year. In running this program, the categories of training participants are divided into two parts, which are general people and persons with disabilities. Based on survey data from the Indonesian Internet Service Providers Association (APJII) as of April 2021, internet users in Indonesia reached 196.7 million people, this is equivalent to 73.7 percent of the population in Indonesia. The number increased by about 25.5 million users compared to the previous year [4].

The things that the government has accomplished are efforts to achieve the goals of the Indonesian Nation, which is to advance the general welfare, educate the nation's life, and embody social justice for all Indonesian people. The phrase of all Indonesian people means involving all levels of society without exception. In its program, the Ministry of

Communication and Information Technology facilitates the public and persons with disabilities. Although in this case the underprivileged have not been fully facilitated as the need for digital devices is particularly expensive, but at least there is a forward direction from the government to facilitate persons with disabilities in increasing digital literacy.

In her research, Karnawati gave the highlight on understanding and contribution of churches to the rights of existing persons with disabilities within the church fellowship. The results of this research uncovered that the average church did not fully understand the concept of disability according to the concept of legislation in Indonesia. Accordingly, the treatment towards persons with disabilities merely reaches the charity step, in the sense that they are sympathized and considered to be unharmed if they are not involved in church ministry, due to their impaired circumstances. Besides that, the average church does not provide accessibility, either physical or technological, to support them to be involved in the church ministry [5].

Since 2017 the government has been fervently providing understanding to persons with disabilities in regard to literacy with the information and communication technology [6]. It is aimed that the persons with disabilities have equal access to information as the common people [7]. The government has collaborated with several companies to conduct digital training to open job opportunities and the chance to create their own job opportunity for persons with disabilities. In addition, the government through the disability laboratory makes applications that can make it easier for persons with disabilities to carry out social activities [8]. Based on this background, it raised a question, i.e., is that the church, in this regard, a spiritual leader and the congregation to a large extent, has utilized information and communication technology to optimally serve persons with disabilities in the church, in accordance with the rights they have? This study aims to reveal the importance of literacy with information and communication technology that the spiritual leaders and the entire congregation know about, to optimize services for persons with disabilities according to their rights.

II. METHOD

This research used the qualitative descriptive study using document study methods and observations. It was based on empirical facts from the preceding researches [9]. They were about the understanding and contribution of the church to the rights of persons with disabilities. The results of the research indicate that the church has not yet fully contributed to providing adequate access to persons with disabilities. The researcher conducted a study of the Republic of Indonesia Law No. 8 of 2016 on persons with disabilities and biblical views on them and collected data on literacy with advanced information and communication technology through reports in the field area, journal literature, books, and website news on technology and disabilities. These sources were then analyzed

so that they can be applied in the church context to optimize services for persons with disabilities.

III. FINDING AND DISCUSSION

A. *Understanding and Contribution of Church to the Rights of a person with Disabilities*

The research by Karnawati on several churches in the Semarang area explained the lack of understanding of the churches about the rights of persons with disabilities. The churches have not fully provided accessible facilities and infrastructure and have not empowered them physically, intellectually, and mentally so that they are able to play a role in ministry activities [5]. Recommendation from the research is the need for an effort to provide understanding to church leaders and congregations to recognize the rights of persons with disabilities. As the government has been conducting today that is actively promoting the literacy movement in information and communication technology for persons with disabilities, the church needs to take advantage of this moment to be involved in carrying on the literacy movement in information and communication technology. Thus, persons with disabilities in the churches can be served to the maximum, both in ICT-based accessibility services, as well as providing awareness of their own rights as individuals who have the right to be directly involved in ministry by using technology.

B. *Disability: Context of Indonesia Law and Biblical Views*

Persons with disabilities are those who have long-term physical, intellectual, mental, and/or sensory impairment which, in interaction with various attitudinal and environmental barriers, hinders their full and effective participation in society on an equal basis with others [10]. Tarigan explicated the need for a theological foundation in conducting inclusive worship to provide opportunities for persons with disabilities to play a role in ministry in the church, among others:

1) *Imago Dei and the need for salvation*

Genesis 1:27 states "So God created mankind in his own image, in the image of God he created them; male and female he created them." Everything is good in the sight of God. Thomas in Tarigan stated that it does not mean that persons with disabilities are incomplete, uncreative, and sinful human beings, thus it requires to be differentiated [11]. It is true that humans shall not be differentiated in terms of receiving God's love. However, Christians need to understand in Genesis 5:3, "When Adam had lived 130 years, he had a son in his own likeness, in his own image; and he named him Seth." Adam, who was created in the image of God, but when he fell into sin, he became corrupt. Adam begot a son in his own image and likeness, which was sinful, filthy, fragile, mortal, and miserable like himself [12]. Now all humans have sinned and fall short of the glory of God (Romans 3:23). Thus, all people, including persons with disabilities, need to receive salvation from God.

2) *The church of Christ as the body of Christ*

Paul advised the church in 1 Corinthians 12:12-26, that they are just as a body, though one, has many parts. Christ as the

head and the church as its parts. Each part of the body has a different function but is united in the same Spirit, which is the Holy Spirit (Titus 3:5). First Corinthians 12:15-16 explains that even the most despicable members are part of the body. Every part of the body does not occupy the same place and position. It does not make any problem as both the most despicable and the most glorious, are both part of the body who receive approval from God and are loved by God.

3) *Jesus took care of those who are weak*

Jesus in his ministry paid great attention to people who suffered from weaknesses, life difficulties, and were marginalized. The Gospels describe Jesus as a teacher, preacher, and healer. Jesus showed His love for persons with disabilities. These were people who were blind, deaf, lame, and others [13, p. 27]. He positioned Himself in the suffering of these persons with disabilities. He extended His solidarity with all mankind by the suffering He bore through the crucifixion on the cross [13, p. 33].

C. *Literacy with Information and Communication Technology*

Literacy derives from the Latin word "literatus" which means learning to read and write [14, p. 1]. It is initially one's ability to process and understand information during their reading and writing activities [15]. Meanwhile, according to KBBI, literacy is defined in various ways, which are writing and reading skills; knowledge or skills in a particular field or activity; and individual ability in processing information and knowledge for life skills [16]. However, the new definition of literacy is an attempt to interpret literacy and its learning. It can be summarized that literacy contains five verbs, which are understanding, covering, using, analyzing, and transforming texts. Therefore, they indicate competence that is far more than just reading and writing [15]. The following are definitions of literacy from various sources. UNESCO stated that literacy is a set of real skills, especially skills in reading and writing regardless of the context in which these skills are acquired and who obtain them. According to NAEYC, literacy is an activity that encourages children to develop themselves as readers and writers so that in this case it really needs interaction with those who are good at literacy. Education Development Center stated that literacy is the ability of individuals to use all their potential and skills in their lives, meaning that it includes the ability in reading words and reading the world [15]. The era of the Industrial Revolution 4.0 and Society 5.0 requires that all levels of world activity undergo major changes. The meaning of the term literacy is not merely stagnant in the understanding of reading, writing, and counting, but it changes to the point of applying and developing new literacy skills, which are data literacy, technological literacy, and human literacy [14, p. 2].

The types of literacy that are currently developing are as follows: 1) basic literacy, is the basic ability in reading, writing, listening, and counting; 2) library literacy, which means the ability to identify and differentiate fiction and non-fiction written works, understand how to use catalogs and indexes, the ability to absorb information in writing works and research; 3) media literacy, is the ability to acknowledge and

read various types of electronic or printed media, and so on, and understand how to use these media; 4) visual literacy, means the understanding and ability to interpret and give meaning to information in the form of images or visuals; 5) literacy with information and communication technology, means a set of abilities to identify and comprehend all things related to technology, such as hardware and software, figure out how to use the internet, and understand ethics in utilizing technology [15].

Gordon W. Smith in Imran clarifies that literacy with information and communication technology (ICT) is related to technological devices that enable people to be facilitated in acting informatively and communicatively. ICT literacy is divided into two parts, as follows: technical literacy and information literacy [17]. The following are components of literacy with information and communication technology: 1) Computer literacy is an individual's possession of a set of skills, knowledge, understanding, values, and their interrelations that enable him/her to carry out activities through information and communication via computer media in order to meet personal needs. Information and communication activities take the form of writing text digitally, playing offline games, using database applications, and so on [17]. Thus, computer literacy is related to the ability to identify, understand, and put computer hardware and software components into practice; 2) Digital literacy is the knowledge and skill to use digital media, communication tools, or networks in finding, evaluating, using, making information, and utilizing in a healthy, prudent, intelligent, appropriate manner, and in compliance with the law in order to foster communication and interaction in daily life [15]; 3) Information literacy is a set of skills to find a way out of a problem. These skills involve identifying problems, seeking information, sorting out, compiling, utilizing, communicating, and evaluating the results of the answers to the encountered problems earlier [17]. For example, information literacy on the internet via search engines, such as Yahoo and Google; 4) Internet literacy is the ability to use theory and practice in relation to the internet as a medium of communication and information management.

D. *Technology for Person with Disabilities*

Minhae and Mee Kim conducted a study on how many persons with disabilities make use of the internet in Korea. The results of the study indicate that there is a significant gap between PWOD (Persons Without Disabilities) and PWD (Persons with Disabilities) in utilizing the internet. It is assumed that the internet is able to help out PWD in improving digital skills and assist in the implementation of daily practical life [18]. Minhae's writing can be a reference in Indonesia. Although there is no similar research that discusses how many persons with disabilities in Indonesia that make use of technology. However, literacy with information and communication technology shall be encouraged within the range of Indonesian society these days.

Several websites have facilitated persons with disabilities at the moment, both in the form of empowerment and information

about devices in the form of technology, for example, 1) <https://www.kerjabilitas.com/> is an information system built on the basis of website and cellular software that serves as a liaison between persons with disabilities who are looking for work and job providers. Through this system, persons with disabilities can post their profiles as job seekers and access information about job opportunities available to them. Persons with disabilities often undergo some obstacles that do not only come from individuals, but also from the environment and how the environmental system is designed. Therefore, there is a need for efforts to create an accessible environment and remove social barriers [19]; 2) www.disabilitaskerja.co.id is a human resource management company specialized for persons with disabilities in Indonesia. It carries out some missions including a) helping restructure the placement of workers with disabilities based on the type of disability with available job vacancies. b) conducting training or mentoring to create a workforce with disabilities who are reliable, professional, and competent in their fields. It is an attempt to implement Law no. 8 of 2016 Article 53 on Persons with Disability, concerning the obligation of the government and private sector to employ at least 1 to 2 percent of the workforce with disabilities of the total number of employees. The scope of business managed by this web is very diverse, ranging from public works, banking, hospitality, even industry, manufacture & automotive [20]. 3) <https://www.emoryvalleycenter.org/katie-beckett-program/> is a humanitarian service company for the rehabilitation and empowerment of persons with disabilities. Through this website, persons with disabilities are able to obtain information on various service programs [21].

In addition, there are various kinds of technology to help persons with disabilities live self-sufficiently and enable them to participate in social life, among others: 1) Benny Zee invented an early autism detection device called Retina scanner. This device was developed using the high-resolution camera method with new computer software that can analyze a combination of factors, including the layer of fibers and blood vessels in the eye. Zee has tested a total of 70 children. The results discovered that 46 children were detected to have autism. The technology is able to identify children with autism up to 95.7 percent [22]. 2) The existence of technology and social media discoveries that offer unique and innovative ways for intellectual disabilities [23]. 3) Technology for persons with visual disabilities in the form of a screen reader. 4) Technology for hearing and speech impairment with voice text converter software. 5) Technology of which images or symbols can be converted into texts. The discoveries are then able to help persons with disabilities to learn the concept of a word or language [24].

Various information through digital can be used by the church as a reflection that they will be able to spur themselves to develop their potential. The church needs the importance of literacy with information and communication technology so that they can provide optimal services to persons with disabilities.

IV. CONCLUSION

Jesus ministered to humans in a holistic manner, both spiritually and materially. He always thought of and paid attention to the weak. He's dealing with the weak and poor was followed by the disciples in the next life. Currently, persons with disabilities are often overlooked in various situations and circumstances. The church needs to conform itself with the passages of times. The world is currently advancing in digitization. The church also needs to open and increase literacy skills with information and communication technology. The forms of optimizing church services for persons with disabilities can be in the form of 1) information to the general congregation and persons with disabilities themselves regarding the rights of persons with disabilities as citizens in using information technology in accordance with applicable laws; 2) the church is able to provide technological infrastructure and applications that help them independently participate in ministry and interact within the congregation; 3) the church provides information to persons with disabilities on official websites that can train them to get job opportunities or even create their own job opportunities through digital.

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