

# Using the Internet of Things to Improve Christian Ministry in the Present Era

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**Abstract**—The rapid increase in the development of technology has penetrated various sectors of life, including the field of Christian ministry, where it provides an orderly service system in accordance with the use of the Internet of Things (IoT) in the millennium era. IoT supports smooth access to information quickly and significantly provides data related to spiritual concepts. Secondary data were obtained from literature research on a topic related to IoT by the Christian ministry. The results showed that the transformation of mindset, self-concept affects the optimization of the use of IoT improves Christian ministry, and it is beneficial for their spirituality. **Research Contribution:** This research contributes to pastoral knowledge and Christian leaders improving their Christian ministry in the present era, which begins with the transformation of mindset and optimizing self-concept in the use of IoT which is beneficial for spiritual development.

**Keywords**—*Internet of Things; Christian Ministry; Mindset Transformation; Self-Concept; Spirituality*

## I. INTRODUCTION

Internet technology has experienced rapid growth in all sectors of life in the current era [1]. Christian leaders need to realize that this significant development in technology is a pathway for God's people to continue carrying out their functions properly. There are various advantages and disadvantages associated with internet technology, which is solely dependent on the users. For instance, Suslov stated the Russian Orthodox Church (ROC) has a negative attitude towards using Internet Technology despite considering it an ethically neutral instrument [2]. Although internet technology can be misused for specific purposes, it is also used as an opportunity for the church to have a new paradigm to improve Christian ministry, rather than analyzing the possible threats [3]. A few numbers of people believe that they already have a

paradigm towards internet technology as something positive. Harefa stated that the spiritual values of Christians in accordance with the Bible tend to fortify them from the negative aspects of internet use [4]. Therefore, internet technology should be used to improve Christian ministry.

The use of the internet has extended to various aspects of human life, such as religion, health, traffic monitoring, fleet management, agriculture, hospitality, water supply, etc., and this is known as IoT. During the covid-19 pandemic, IoT was significantly used by Christians and education institutions. Currently, IoT is no longer categorized as a taboo; instead, it is a necessity and has become a new culture and lifestyle for the current generation. Some places still do not have qualified human resources and facilities for their development and use. Lukuhay stated that the use of the internet by Christians to worship from home does not reduce the nature of the ministry; however, it needs to be carried out optimally [5]. Therefore, this research discusses how optimizing the use of IoT can improve Christian ministry. It also determines the benefit of IoT for the spirituality of Christians along with the development of internet technology today.

## II. METHOD

This paper was prepared by conducting library research methods [6] in a descriptive, qualitative research type. It used secondary data based on the results of the study and was included in the discussion for clarity on the objectives of the research to strengthen the resulting [7]. The purpose of this paper is to describe the paradigm shift of Christian ministry to adapt profoundly the use of IoT through the transformation of mindset and self-concept. The research step is carried out by first presenting the results of a literature study on IoT, then finding its use in Christian ministry that has an impact on Christian spirituality.

### III. FINDINGS AND DISCUSSION

#### A. Internet of Things

IoT is a technology that can revolutionize the way people live in various walks of life. It consists of multiple interconnected objects via the internet and is controlled by simple sensors, such as smartphones and tablets. This is a relatively new paradigm, which is rapidly developing in accordance with the growth of the modern wireless telecommunication [8]. Some of the sectors that significantly benefit from IoT are religion, health, traffic monitoring, fleet management, agriculture, hospitality, water supply, education, smart cities/homes, transportation, logistics, manufacturing industries, etc. Thus, IoT transforms the traditional people's way of life into a high-tech lifestyle [8], [9].



Fig. 1. Internet of Things.

Figure 1 shows IoT collaborates smart devices and an internet network that allows everything to run more effectively and efficiently. Furthermore, it is recognized as an enabler capable of increasing efficiency and optimizing users' daily activities through sophisticated data analysis processes often called cyber-physical systems [10]–[12]. Activities previously carried out by humans, such as paper stacks to store data and information, have now shifted to the use of machines involving robots with artificial intelligence capabilities provided by the internet.

#### B. Christian Ministry

According to Tambunan [13], effective ministry activities need to be carried out with a qualified mind and firm belief. This is because the integrated use of IoT in Christian ministry is significant to increase the dimensions of Koinonia, Marturia, and Diakonia globally. The application of IoT services provides fast, efficient, and timely information that tends to primarily affect service effectiveness.

Churches need to be ready to accept the transformation associated with IoT by paying attention to technological advancement. This is not only in a bid to follow the developing trend instead, but it is a way to package pastoral ministry into the digital world. Due to the inception of the covid-19 pandemic and the industrial revolution 4.0, various religious activities are carried out online. Studies have shown that churches can improve the Christian ministry with IoT irrespective of their members' location and time. Some of the advantages of IoT are the creation of spiritual internet sites,

social media pages for easy access to information, live streaming of worship, online congregational data collection, virtual meditation sharing, offering QR bar codes, etc. Therefore, Christian leaders need to realize that the world has evolved digitally with the massive use of IoT in various sectors. Furthermore, these leaders need to try and develop their internal aspects, accurately improve their mindsets and understanding of this tool in Christian spirituality.

##### 1) Mindset Transformation

Pranoto cited Calvin's view on the importance of the related principle of faith and science by stating that 'true and strong wisdom incorporates the knowledge of God and oneself [14]. This mindset makes humans able to follow the acceleration and take advantage of digital IoT developments. True knowledge of God's Word produces the right faith and behavior, meaning that the ratio of submission to God is accompanied by openness to advances in information technology. The transformation of mindset occurs because humans are created to possess divine intellectual qualities.

Christians have realized that the church is not just a building, rather it is also an organism. The inception of the Covid-19 pandemic limited the performance of face-to-face worship and encouraged the occurrence of mindset transformation by leveraging IoT, capable of supporting online worship. However, the development of human resources that handle church services with IoT needs adequate support from church leaders

##### 2) Self-Concept Foundation

According to Calhoun and Acocella, self-concept reflects one's spiritual self and consists of three aspects: knowledge, evaluation of conditions, and expectations of oneself [15]. Quoting Zahran's opinion, Kurniawan stated that the correct meaning of identity makes humans have the right self-concept; therefore, they can know and accept themselves properly [16]. Self-concept and spirituality are built with the following (1). the paradigm of grace; (2) the awareness that oneself is in the process of change, renewal, and growth towards Christlikeness, and; (3) the gospel of Christ [16]. The foundation in knowledge encourages humans to further analyze the millennial era of the 21<sup>st</sup> century using IoT.

##### 3) Spirituality

Etymologically, the word spirituality means 'spirit,' and it is related to the encouragement, impetus, and guide for humans in carrying out their various life activities. Spirituality is the existence of a person in a "right" relationship with God and other creatures. Christian spirituality does not originate from the presence of a person in a place of worship or involvement in religious activities. In quoting Heuken and Darmaputra's words, Rahardjo stated that Christian spirituality is developed based on an appreciation of the Bible's message and the spirit of the times, followed by a spiritual lifestyle of knowing God and oneself in the knowledge development process [17]. Therefore, spirituality is associated with making religiosity come alive in appreciation, not just by carrying out routine rituals.

Spirituality is also a transformation process [18], which accelerates humans' physical, mental, work, mind, and intellectual aspects. It shows that that the human self is characterized by feelings, inner strength, and understanding that reflect values, norms, and empathy with nature. Spirituality plays an essential role in the religious life of families and communities [19]. Due to its transparency, the content of spirituality talks about: (1) A relationship between self and God; (2) Quality and purpose of life-based on vision and values [20]; and (3) Self-awareness.

#### IV. CONCLUSION

In conclusion, IoT currently provides adequate support for the smooth running of pastoral tasks in improving the Christian ministry and covering all life aspects. Based on the results of the discussion in this research, it shows that the use of IoT is essential for the development of Christian ministry today, especially during the Covid-19 pandemic. Secondly, the transformation of mindset and self-concept is very much needed in optimizing the use of IoT; therefore, it is valid and supports Christian spirituality effectively and innovatively. Thirdly, the use of IoT makes it possible for Christian ministry to be accessed by anyone, anytime and anywhere.

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