

TECHNOLOGY AND THE KINGDOM VISION: AN APPLICATION OF THE IGNATIAN PRINCIPLE OF *TANTUM QUANTUM*

Wilson Angelo G. Espiritu and Edwin B. Odulio[♦]
Ateneo de Manila University

Abstract

The past century testifies to how technology can bring not only good benefits to humanity but also harm and destruction. Since then, the potential threat of destruction of the human race and of the entire planet pervades. Given this scenario, how should Christians relate with the present unremitting technological developments that may not only be beneficial but also detrimental to life on earth? In this paper, we propose that Christians, on the basis of their ultimate hope for the fulfillment of God's Kingdom, should uphold technological development insofar as it helps in the advancement of the Kingdom of God. Otherwise, it is their responsibility to be actively critical to and resisting these movements. This position is based on the Ignatian Principle *Tantum Quantum* or "insofar as" it leads in the pursuit of the end for which we were created. In secular terms, Christians should be progressive in whatever contributes to the common good

[♦]**Wilson Angelo G. Espiritu** is a faculty of the Theology Department at the Ateneo de Manila University, Philippines. He completed his MA in Theological Studies at the same university. He currently teaches Theology courses both in the undergraduate and graduate levels. His research interests include Hope and Kingdom of God Theologies, Political and Liberation Theologies, Practical Soteriology, and Ignatian Spirituality. He is actively involved in various formation programs for young Filipinos and Church organizations. Email: wespiritu@ateneo.edu

Edwin B. Odulio is a theology instructor at the Ateneo de Manila University, Philippines. He finished his master's degree in Theological Studies at the Ateneo and is currently taking his PhD degree in Theology. He teaches courses that deal with the Catholic social vision and is involved in the different outreach activities to help the youth to understand better their Christian faith. Email: eodulio@ateneo.edu

and preservation of life and defensive in anything that may threaten them. This position shall be particularly situated in the Philippine context given the prevailing issues on public services, access to communication and information technology, and the effects of the global ecological crisis.

Keywords: Christian Hope, Common Good, Discernment, Kingdom of God, *Tantum Quantum*, Technology

1. Introduction

Since the dawn of history, humans have engaged themselves in innovating ways and inventing tools that will bring efficiency to their day to day life.¹ From the use of stones as knives, to the discovery of how to control fire, and up to the modern-day use of electricity to power up mechanical and wireless devices, humanity has transformed their way of life and the world they live in. This process of innovation that has brought dramatic changes to human life is called technology. The word technology is derived from the Greek words *tekhne* (art or skill) and *logia* (discourse). Technology, therefore, pertains to the discourse of practical knowledge, methods, techniques, skills, and processes geared towards the achievement of certain objectives that impact human life.²

Technology has brought many beneficial contributions to the improvement of human life and society. However, it must likewise be acknowledged that technology has also caused numerous problems that endanger the common good and the preservation of life. Some forms of technology caused harms that outweigh all the advantages they have generated. This is because aside from the benefits human society can get from technological development, there are negative repercussions that may be left untold, unnoticed, or neglected.³ Technological development is, indeed, an amalgamation of both good and evil which in certain cases offers incomparable solutions but at other times threatens humanity.⁴

¹One of the distinguishing marks of humans from other creatures is their technological ability. Human technology's history started when humans discovered how to give stone a cutting edge. See <http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ab11>.

²Cf. <http://www.britannica.com/technology/history-of-technology>; <https://en.wikipedia.org/wiki/Technology>.

³This includes the weapons of mass destruction, biological warfare, industrial establishments that cause widespread pollution and people displacement, and the like.

⁴David Stewart, "Religion, Technology and Change," *Listening: Journal of Religion and Culture*, 16, 2 (Fall, 1981) 118-119.

There are various cases in recent history that is known to have utilized certain forms of technologies which have negatively affected humanity. We just have to recall the devastating effects of the two World Wars of the past century. The technology of warfare, ammunitions, and weapons of mass destruction has taken innumerable lives and wreaked havoc in many peoples and lands. One specific example that can be called to mind is the Hiroshima and Nagasaki bombings which killed hundreds of thousands of people. This is due to the invention of the atomic bomb.⁵ The irony in this is that highly-militarized nations claim to have invented these weapons to provide security, safety, and protection for their homelands. But, aren't these nuclear weapons one of the grave threats right now to the common good and life's survival? To this issue, the renowned theologian of hope, Jürgen Moltmann commented, "Ever since the invention of the atomic and hydrogen bombs, humanity as a whole has become mortal. Huge arsenals of missiles and bombs are poised for the 'final solution' of the question about humanity. There will be no human life after the nuclear winter."⁶ Indeed, the impending threat of world-wide nuclear war imperils not only human survival but also the fate of the entire planet. Nevertheless, nuclear technology is not only perilous in the form of weapons of mass destruction. We must also remember the tragedy caused by the nuclear leak in Chernobyl which brought severe damaging effects to human life and the environment even up to this time.⁷

The life and environmental hazards brought by nuclear technology is just one example among the many complications that some forms of technology engender. These days, there are many problems that equally imperil the survival of life in our world. To name a few, we

⁵See <https://ehistory.osu.edu/articles/story-atomic-bomb>; see also <http://www.history.co.uk/study-topics/history-of-ww2/atomic-bomb>. These articles provide brief information about the invention of the atomic bomb that was used to end the Japanese regime during World War II.

⁶Jürgen Moltmann, *Sun of Righteousness, Arise! God's Future for Humanity and the Earth*, trans. Margaret Kohl, Minneapolis: Fortress Press, 2010, 38.

⁷For a detailed account of the Chernobyl accident, see <http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/chernobyl-accident.aspx>; see also Mary Mycio, "How Many People Have Really Been Killed by Chernobyl?" Slate Magazine, http://www.slate.com/articles/health_and_science/explainer/2013/04/chernobyl_death_toll_how_many_cancer_cases_are_caused_by_low_level_radiation.html. With regard to the Fukushima incident, see <http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-accident.aspx>; see also <http://fukushimaontheedge.com/the-earthquake-and-the-nuclear-accident/whats-happened>.

may point out the continuous depletion of natural resources and the massive generation of waste materials due to the increasing production of new technological products. Arguably, the present ecological crisis is also one of the adverse effects of this. This crisis is likewise exacerbated by increasing greenhouse gasses and toxic wastes, global warming, and climate change.⁸ This situation is not unknown to most people today. This is because almost everyone can feel its effects exhibited in the occurrence of stronger typhoons and hurricanes, massive snow storms, deluging floods, and other natural calamities.⁹

Pope Francis, in his recent Encyclical *Laudato Sí*, lamented on how technology may attempt to offer solution to one problem only to generate more. This is because technology, often linked to business interests, may be presented as the sole solution for problems. However, since it sometimes disregards the “mysterious relationships” that exist between things it produces negative effects that create a ramified web of complications (LS, 20). And so, it is important that the present civilization be reflective of the current technological developments for they may generate negative consequences in the future generation and in the future of our planet. Jürgen Moltmann made this prudent warning,

Regardless industrialization at the expense of nature, the irreversibility of man-made global warming, and the inability to retract the contamination of the earth, the oceans and the atmosphere — these things have made mortal and destructible the organism of the earth in which, and from which, human beings live... We cannot prolong the era of beginnings and progress without seeing in front of our eyes the era of annihilations and end. There are no longer any beginnings without a recollection of the end to which they can lead.¹⁰

To heed this warning, it is imperative to consider whether certain technological developments genuinely lead to progress or do they actually jeopardize life in this planet. Christians, then, should

⁸Cf. Pope Francis, *Laudato Sí*, 23 (24 May 2015) accessed at http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html. Hereafter cited as LS with paragraph number.

⁹In 2013, the Philippines was hit by Haiyan, one of the strongest tropical cyclones recorded in history. It is the deadliest Philippine typhoon recorded with 6,300 casualties in the Philippines alone. Haiyan is just one example of worsening natural calamities that beset the world today. See https://en.wikipedia.org/wiki/Typhoon_Haiyan; <https://www.nasa.gov/content/goddard/haiyan-northwestern-pacific-ocean/#.Vtd0vpx97IU>.

¹⁰Jürgen Moltmann, *Sun of Righteousness, Arise! God's Future for Humanity and the Earth*, 38.

conscientiously discern how they are supposed to relate with technological development.

2. Attitudes toward Technological Development

In response to technological developments there are people who take a defensive stance while there are others who take a progressive stance.

To be on the defensive stance means to be overly suspicious on and to refuse to utilize modern technology. For instance, there are groups that find modern technology and conveniences as something incompatible with their faith, and so they reject the use of the present-day technological advancements. A good example of this is the Amish people who consider the use of electric wires as connection with the world and therefore contradicts the biblical admonition: "Do not conform yourselves to this age..." (Rom 12:2).¹¹ Although Amish people do not see modern technology as intrinsically evil, they still refuse to use them on the ground that it may cause distraction to their faith or even lead to the deterioration of their values.¹² The problem with having an overly defensive attitude towards modern technological development is that it limits the opportunity of the people to maximize the real beneficial effects that technology has to offer. These benefits may include improved services in medicine, information technology, education, and many others. To be overly suspicious or defensive towards technological developments would entail alienating people from the good side of today's global landscape.

The opposite stance of being defensive on technological development is to be progressive. This means to be an advocate of technological developments. Nowadays, there is regular updating about the latest technological trends. It is not uncommon to see people wanting the newest gadgets, inventions, and innovations. These developments would always be marketed as something better than its predecessors. Year after year, there will be a continuous supply of new technological inventions because the demand for it does not recede. It seems to be easy for technological developers and companies to sell their products to the people because they are constantly curious and desirous of what is new. The problem with being overly progressive, however, is the tendency to be uncritical of how the latest technology may affect human life, values, and

¹¹See <http://lancasterpa.com/amish/amish-people/>.

¹²See <http://theamishvillage.net/lancaster-county-amish/pa-amish-technology/>.

behaviour. It should also be taken into account how these incessant developments may threaten the common good and the life on the planet. For instance, ethical questions about the use of social media as a tool for human trafficking and prostitution must be of serious consideration.¹³ Another case would be on medical ethics which includes the issue on stem cell research.¹⁴ These are just some of the many issues that need further consideration in connection with the present technological developments.

Given the aforementioned advantages and limitations of having a one-sided stance on technological development, this paper proposes a critical progressiveness and defensiveness. To be both defensive and progressive means to be critically engaging in each technological development identifying which of them may be truly beneficial or detrimental to life and the common good.¹⁵ It means to be carefully discerning which position is more appropriate given a particular situation. Since it presupposes that technology has the good side and the negative side, it calls Christians to be not only considerate but also cautious of technological developments. It requires them to have a critical reflection on technology where there is a need to prudently discriminate whether a specific development is helpful or harmful and weighs the possible consequences of such novelties to human life in particular and to the entire life of the planet in general.

One should bear in mind that this process of discernment is not easy. It is not like choosing between black and white. It requires careful and serious consideration of objectives, circumstances, and

¹³See *The Rise of Mobile and the Diffusion of Technology-Facilitated Trafficking* (2012) at <https://technologyandtrafficking.usc.edu/files/2011/08/HumanTrafficking2012.pdf>. The report of the researchers shows that those involved in human trafficking were able to utilize technology in their modus operandi. Digital technologies like mobile phones, social networking sites, and the Internet may have provided significant benefits to society, but they are also being used as new tools for exploitation and abuse. Human trafficking has been increasingly taking place online and over mobile phones. However, the actual role of digital technologies in human trafficking still remains unclear. It requires a more in-depth examination of the situation to identify and respond to new threats and opportunities.

¹⁴Embryonic stem cell research leads to violate some moral principles. In order to acquire embryonic stem cells, the early embryo has to be destroyed. This entails terminating an existing human life. See <http://www.eurostemcell.org/factsheet/embryonic-stem-cell-research-ethical-dilemma>.

¹⁵For the great theologian of hope, Jürgen Moltmann “every ethics has to be both defensive and progressive, because every ethics should preserve life and also further it.” See Jürgen Moltmann, *Ethics of Hope*, trans. Margaret Kohl, Minneapolis: Fortress Press, 2012, 85-86.

possible effects of a technological development. It is, indeed, a complex process. This paper will not delve into proposing particular norms on responding to occasions of moral dilemma. The primary goal here is to provide a general guiding vision and a fundamental principle that may help in the discernment process.

3. *Tantum Quantum* and the Kingdom Vision

This paper proposes the eschatological hope for the Kingdom of God as the guiding vision on how Christians ought to relate with technological development. Accordingly, Christians may support certain technological developments “insofar as” (*tantum quantum*) it leads to the advancement of the Kingdom of God and rid of them “insofar as” they hinder its realization.¹⁶

The Kingdom of God is the central message and vision of Jesus Christ (cf. Mk 1:15; Mt 3:2; 4:17). Yet, he did not provide a precise definition of what it is. Rather, he used it to “embrace all the blessings of salvation, a salvation of God’s active presence within people’s daily life, liberating them from the enslaving power of evil, for loving service of their fellowmen.”¹⁷ The Kingdom of God is a “dynamic symbol pertaining to God’s active presence among His people” (CFC, 481). Leonardo Boff talks about the Kingdom as “a total, global and structural transfiguration and revolution of the reality of human beings; it is the cosmos purified of all evils and full of the reality of God. The Kingdom is not to be in another world but is the old world transformed into a new one.”¹⁸ Unlike what many Christians think, the Kingdom does not signify something otherworldly or totally spiritual. It pertains to the entirety of this world submitted to God’s sovereignty.¹⁹ When this happens, it leads to the full satisfaction and realization of human welfare. According to John Fuellenbach,

This seems to have been the Kingdom message Jesus came to proclaim. This was the vision he wanted to communicate to us. It is a vision of God, the world, humankind, and creation as a whole, as well as of each

¹⁶*Tantum Quantum* is the term used by St Ignatius’ Principle and Foundation of the Spiritual Exercises referring to the right use of creatures: “We are to use them in so far as (*tantum quantum*) they lead us to our last end, and be rid of them in so far as (*tantum quantum*) they hinder us in the pursuit of the end for which we were created.” See <https://www.catholicculture.org/culture/library/dictionary/index.cfm?id=36778>.

¹⁷Catholic Bishops’ Conference of the Philippines, *Catechism for Filipino Catholics*, Manila: Episcopal Commission on Catechesis and Catholic Education, Word and Life Publications, 2005, 481. Hereafter cited as CFC with paragraph number.

¹⁸Leonardo Boff, *Jesus Christ Liberator: A Critical Christology for Our Time*, Maryknoll, New York: Orbis, 1981, 53.

¹⁹Cf. Leonardo Boff, *Jesus Christ Liberator: A Critical Christology for Our Time*, 56.

individual human person. It is the most grandiose vision that the world has ever known. For this vision, Jesus lived, labored, suffered, and died. And it is this vision he entrusted to his disciples: "As the Father has sent me, so I send you" (Jn 20:21).²⁰

The Kingdom of God, being the central message of Jesus, should serve as the guiding vision for all Christians. Being their guiding vision, it has to be the fundamental consideration and norm for their thoughts, words, and deeds. Their choices, decisions, and actions should all be geared towards the advancement of Jesus' Kingdom vision.

In relating with technology, Christians should support developments that contribute to the propagation of the Kingdom vision and oppose whatever hinders it. In other words, they should uphold technologies that contribute to the advancement of God's reign which entails upholding the dignity of human life and the propagation of the common good. On the other hand, they should be critical and resisting to those that detriment these. The Catechism of the Catholic Church says, "science and technology are precious resources when placed at the service of man [sic.] and his integral development for the benefit of all."²¹ Meanwhile, the Second Vatican Council teaches that, "while earthly progress must be carefully distinguished from the growth of Christ's kingdom, to the extent that the former can contribute to the better ordering of human society, it is of vital concern to the Kingdom of God."²² Thus, technological development as "the creation of products and processes for the purpose of improving human chances of survival, comfort level, and quality of life"²³ has the potential to be of service to the Kingdom vision. Insofar as technology contributes to the advancement of the agenda of the Kingdom of God, Christians may uphold it.²⁴ Otherwise, they have to fervently oppose it.

²⁰John Fuellenbach, *The Kingdom of God: The Message of Jesus Today*, Maryknoll, New York: Orbis, 1995, 15.

²¹*Catechism of the Catholic Church*, 2293, http://www.vatican.va/archive/ccc_css/archive/catechism/p3s2c2a5.htm.

²²Vatican Council II, *Gaudium et Spes* 39 (December 7, 1965), http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vatii_const_19651207_gaudium-et-spes_en.html.

²³Susan George, *Religion and Technology in the 21st Century: Faith in the E-World*, Hershey, Pennsylvania: Information Science Publishing, 2006, 3.

²⁴This position is aligned with the teachings of Vatican II: "Thus, far from thinking that works produced by man's own talent and energy are in opposition to God's power, and that the rational creature exists as a kind of rival to the Creator, Christians are convinced that the triumphs of the human race are a sign of God's grace and the flowering of His own mysterious design. For the greater man's power

Technological developments and the hope for the Kingdom of God are two realities that are present in the life of Christians today. The two are not diametrically opposed to each other. Rather, technology could be of service to the Kingdom vision while, on the other hand, the Kingdom vision could purify and put into order the development and utilization of technology. Guided by the Kingdom values, technology will be geared towards its rightful purpose which is the common good and the preservation of life. The technological developments in education, medicine, human welfare, environment protection, etc., can then become instrumental in building God's Kingdom here on earth.

4. Technological Development in the Philippine Context

In the Philippines, the influx of technological improvements has given both benefits and detriments. For instance, on the level of individual Filipinos and their families, technology has raised the efficiency of communication. Many Filipinos have benefitted from the new technological media like cell phones, the internet, etc., especially those who are working overseas and the Filipino migrants.²⁵ Yet, the same technology has also brought negative effects on the family. Technology has adversely influenced the quality time of many families worldwide.²⁶ The tight-bound family culture of Filipinos was also not left unaffected. These days, it has become ordinary to see a Filipino family gathered together in a restaurant and yet seem disconnected from each other because of their gadgets. Each of them is "engrossed and 'spending time' with someone who is not there, possibly not even a member of the family."²⁷ On the societal level,

becomes, the farther his individual and community responsibility extends. Hence it is clear that men are not deterred by the Christian message from building up the world, or impelled to neglect the welfare of their fellows, but that they are rather more stringently bound to do these very things" (GS, 34). "Since the kingdom of Christ is not of this world, the Church or people of God in establishing that kingdom takes nothing away from the temporal welfare of any people. On the contrary it fosters and takes to itself, insofar as they are good, the ability, riches and customs in which the genius of each people expresses itself. Taking them to itself it purifies, strengthens, elevates and ennobles them." Vatican II, *Lumen Gentium*, 13 (21 November 1964), http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19641121_lumen-gentium_en.html.)

²⁵See <http://pcij.org/stories/digital-families/>; See also <http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6397972&url=http%3A%2F%2Fieeexplore.ieee.org%2Fiel5%2F6387739%2F6397962%2F06397972.pdf%3Farnumber%3D6397972>.

²⁶See <http://www.livestrong.com/article/243280-how-does-technology-affect-family-communication/>; see also <http://electronics.howstuffworks.com/family-tech/tech-effects-on-family/5-ways-technology-has-negatively-affected-families2.htm>.

²⁷Cf. <http://friso.com.ph/tech-and-family-time.html>.

modern machineries and equipment were introduced in different industries that led to better production and delivery of quality materials and services. While this has been helpful in the socio-economic progress of the country, it has also brought adverse effects to the common people. A lot of them have been laid out from their jobs because machines have replaced their functions.²⁸ Moreover, technology has also caused harmful effects on the environment due to the fast replacement of materials that not only consume more of the environmental resources but also destroys it because of the waste they produce in the process.²⁹

These are just a few of the many examples of the benefits and drawbacks of technological development in the Philippine society. How then, should Filipino Christians use technological development in the service of the Kingdom vision? Three important areas in the Philippine context will be cited. These are the areas of public service, communication and information, and ecology.

In the area of public service, technology maybe aligned to the Kingdom vision if it promotes the betterment of human welfare. A good example of this is better medical and healthcare services. In a country like the Philippines, dengue, malaria, and leptospirosis³⁰ are some of the common epidemics. Through the use of medical research and technology, improved ways and means on how these ailments may be prevented and cured can be readily developed and made accessible to people. Also, through medical technology, cheaper medicines that are equally effective and safe may be produced to

²⁸Bach M. Macaraya in "The Philippines Workers' Protection in a New Employment Relationship" discusses how globalization has affected the Philippine economic development. Macaraya noted in the study that because of the stiff competition in the market, industries have to utilize more efficient technology to become more competitive. This, however, meant that industries have to "down size or right size their operations" which in turn entails the "dismissal of a substantial number of regular employees on grounds of redundancy." See the whole paper here. https://www.google.com.ph/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0ahUKEwiSvrT-gY3LAhVBv5QKHVDYBwkQFghDMAC&url=http%3A%2F%2Fwww.ilo.org%2Fwcmssp5%2Fgroups%2Fpublic%2F---ed_dialogue%2F---dialogue%2Fdocuments%2Fgenericdocument%2Fwcms_205376.pdf&usq=AFQjCNGEaSHVctu epfn5gzkFj2YK-tuOwg&sig2=nHIEVbUIX7iOVittI8LbGA.

²⁹See <http://www.blacksmithinstitute.org/heavy-metal-pollution-in-the-marilao-river.html>. This is just one example of so many other cases of environmental problems caused by industrial pollution across the country. See also Pope Francis, *Laudato Si*, 21-22.

³⁰See <https://www.internations.org/philippines-expats/guide/living-in-the-philippines-15358/the-philippines-healthcare-and-diseases-2>.

benefit the Filipino masses. This is most beneficial for a great number of Filipinos who are poor and who oftentimes cannot afford to buy the medicines they need for treatment.³¹ It is unfortunate that there are those who cannot afford medicines which are left to suffer the disability caused by their sickness or even face an early death. Through the aforementioned examples, technology maybe at the service of people in order to ensure the normal functioning of their abilities, to prevent or to cure their ailments, and to better contribute to their development.³² Moreover, technology can also be used for improving social facilities and equipment that could help people in their functions, work, and service of others. For instance, technology may be used in developing better facilities, processes, techniques, and machineries that can be useful for farmers in taking care of their crops and in selling their products. This will not only augment their source of living but also lead to a better provision for the country's agricultural needs. However, this should not mean replacement of the human workers by these technological developments but rather it should serve as an opportunity for enhancing their working capacity. The Kingdom vision should always remain as the fundamental ideal in identifying whether certain forms of technological innovations may be supported by Filipino Christians. As noted earlier, technological advancement should be used, insofar as it will help in pursuing the realization of the Kingdom vision. This would also entail people working out of regard for others, especially their own family, but also for the society they belong to, the country of which they are children, and the whole human family of which they are members.³³

In the area of communication and information, technology may be of service to the strengthening of the Filipino family which may contribute to nation building. An example of this is how telecommunication technologies connect family members given the phenomenon of Filipino migration. Most of these migrants have left the country to find greener pastures. Nonetheless, overseas Filipino workers have benefitted a lot from the use of modern

³¹See <http://newsinfo.inquirer.net/541145/55-of-filipinos-cant-buy-medicines-survey>.

³²Pope Paul VI, *Declaration on Procured Abortion*, 17 (November 18, 1974), http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19741118_declaration-abortion_en.html.

³³John Paul II, *Laborem Exercense*, 16 (September 14, 1981), http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_14091981_laborem-exercens.html.

telecommunication technologies to maintain their connections with their families. The use of text messaging, phone calls, and the internet have provided the Filipino families with a variety of means for them to stay in touch with their loved ones. One overseas Filipino worker said, “these gadgets help us continue to become family although we are worlds apart.”³⁴ Moreover, the use of technology could also expand, preserve, and cultivate community connections and relations. This can be done through the use of social media networks where people could easily get in touch with others. In times of national crisis, Filipinos can become more aware of the situation and needs of others because of social media connections. It will also allow them to respond and send support more easily and immediately to those who are in need. The Church, itself, recognizes the importance of this form of technology in relation to the Kingdom vision: “these media, if properly utilized, can be of great service to mankind, since they greatly contribute to men’s [sic.] entertainment and instruction as well as to the spread and support of the Kingdom of God.”³⁵

Finally, in the area of ecology, systems and processes that will protect the environment, lessen pollution, and wastes products, may also be developed with the help of technology. For example, in fulfilling the mandate of creating an effective and sustainable solid waste management plan in the Philippines, modern ways and techniques of segregating, recycling, and decomposing waste materials could be employed.³⁶ An example of this is the use of facilities that recycle plastic wastes to create new products like Monobloc tables, drawers and chairs. This lessen the use of raw materials in producing new products and also lessen the plastic wastes that are hazardous to the environment. Other examples of using technology in caring for the environment is the use of electronic transportations to lessen carbon emissions, the use of windmills, geothermal energy, solar panels, and the like, in producing electricity instead of oil or natural gas. These are some of the ways on how technology may be useful in protecting the environment that people, most especially the poor, are largely dependent on for their living and survival (LS, 25).

³⁴See <http://pcij.org/stories/digital-families/>.

³⁵Paul VI, *Inter Mirifica* 2 (December 4, 1963), http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_decree_19631204_inter-mirifica_en.html.

³⁶Albert P. Aquino, Jamaica Angelica P. Deriquito, and Meliza A. Festejo, “Ecological Solid Waste Management Act: Environmental Protection through Proper Solid Waste Practice” (Philippines, 2013), http://ap.fttc.agnet.org/ap_db.php?id=153&print=1.

Technological developments are part and parcel of the 21st century global landscape. Christians, as they relate with these advancements should always bear in mind their fundamental commitment and unwavering hope for the full realization of God's Kingdom. Insofar as these technological developments plead the vision of the Kingdom, they may be advocated by Christians. Otherwise, they should refrain from supporting it and they should even be prophetically against it. St. Pope John Paul II reminds us,

...today I appeal to all of you to view technology within the context of the message of the Cross and to do your part so that the power of technology will serve the cause of hope. Technology has contributed so much to the well-being of humanity; it has done so much to uplift the human condition, to serve humanity, and to facilitate and perfect its work. And yet at times technology cannot decide the full measure of its own allegiance: whether it is for humanity or against it. The same technology that has the possibility to help the poor sometimes even contributes to poverty, limits the opportunities for work and removes the possibility of human creativity. In these and other instances technology ceases to be the ally of the human person. For this reason my appeal goes to all concerned: to you, labor leaders; to you, business leaders; to you, scientists; to you, political leaders; to everyone who can make a contribution toward ensuring that the technology... will truly serve man, woman and child throughout this land. And in its final and greatest triumph may technology lead us to proclaim the surpassing magnitude of that Divine Wisdom which makes technology possible, but which from the Cross of Christ reveals the very limitations of this technology. And from the Cross of Christ, Divine Wisdom portrays that new earth which all technology must serve: the one embraced by a Mother's love.³⁷

³⁷John Paul II's Homily at Toronto during his Apostolic Journey in Canada, (September 15, 1984), https://w2.vatican.va/content/john-paul-ii/en/homilies/1984/documents/hf_jp-ii_hom_19840915_messa-toronto.html.