

**UBAT PAHALA CHARLES SILALAH**  
**SEREPINA YOSHIKA HASIBUAN**  
**GLORIA MATATULA**

**RELIGION, TECHNOLOGY AND COOPERATIVE RATIONALITY:  
A PHILOSOPHICAL APPROACH**

**Ubat Pahala Charles Silalahi**

Gadjah Mada University, Faculty of Philosophy, Indonesia.

Email: ubatpahala77@mail.ugm.ac.id

Orcid: 0000-0001-8938-0238

**Serepina Yoshika Hasibuan**

Mawar Saron School of Theology, Indonesia.

Email: serepinahasibuan1991@gmail.com

Orcid: 0009-0002-7151-6728

**Gloria Matatula**

University of Pattimura, Indonesia.

Email: gloriamatatula53@gmail.com

Orcid: 0000-0001-8764-0972

**Abstract:** The conflict between religion and science reached its peak after the Enlightenment. People today exhibit a greater inclination towards science as compared to religion. Religion's influence in shaping human progress diminished as science gained favor. Following over a half-century of strained ties, a movement arose that opposed the growing hostility between religion and science. Today, the era of digital disruption has become part of human civilization. As a result of scientific progress, information technology requires reconciliation with faith. After all, religion needs secular methods and ideas for its advancement. So, this paper offers a new type of entanglement between religion and technology based on cooperative rationality. Cooperative rationality considers reason as the foundation, then cooperation as the next step. Because religion and technology both rely on human reason, with cooperative rationality, religion and technology can find complex, coordinated actions that allow both to benefit. So, organized scientific inquiry is not merely for taking on intellectual tasks but also for humanity. Cooperative rationality relies on fundamental intellectual concerns to pay more attention to technological goals, considering scientific and human values.

**Key words:** Artificial Intelligence, Cooperative Rationality, Faith and Reason, Religion and Information Technology, Critical Openness

## 1. Introduction

Today, many scientists, philosophers, and skeptics consider religion and technology almost incompatible, especially in developed countries. The contradiction between religion and technology is not without reason, as technology depends on science, and the production of science is so dependent on technology that it casts doubt on the relationship with religion as a necessity. On the other hand, religious leaders often show a strong aversion to technology. This aversion can partly be attributed to a natural response to technology's destructive capabilities but can also stem from religious fundamentalism, adherence to outdated religious practices, or unquestioning loyalty to dogma (Dawes 2016, 47). Regardless of the situation, there is a common belief that religion and technology are entirely different worlds with no common ground (Sjöstrand 2021, 159). This gap is even more pronounced if we examine the history of the clash between religion and science. Because scientific advances threatened their position, church leaders often set boundaries to maintain their authority (Draper 2009, 332). The encyclical *Pascendi Dominici Gregis*, issued by Pope Pius X, represents one of the Church's numerous instances of hostility to science. Pope Pius X denounced modern civilization for its pride in science. According to Pope Pius X, science should be subject to the teaching authority of the Church's magisterium because science has no authority and little application to theology or morality (Thompson 2009). We can still trace old documents on the church's opposition to science. As the arbiters of truth, the Church and the Apostolic See became a wall to science. The Church and the Apostolic See entered all areas of civil life, and the Church did not allow children to receive education outside the Roman Catholic Church (Draper 2009, 366).

Later, Enlightenment ideas eroded the authority of the Catholic Church and paved the way for an intellectual revolution characterized by many scientific discoveries. The scientific revolution and scientific works by Francis Bacon, René Descartes, Isaac Newton, and Immanuel Kant are what define this time period, which is known as Renaissance humanism (Zafirovski 2010, 144). This movement questions the authority of the Church in the public sphere. Spinoza even challenged the Church's authority as the legitimate interpreter of Scripture (Spinoza 2007, 97). The Age of Enlightenment delegitimized theocratic medievalism as a dead past and turned traditionalists or antiquarians, especially medieval feudalists and their defenders, into an extinct species (Zafirovski 2010, 67). "Dare to use your reason"—that was the motto of the Enlightenment (Kant 1985, 85). Society faces the task of employing critical reasoning to challenge the accepted paradigms of thinking and collective existence. Science must base

itself on experimentation and observation. There is, thus, a strict separation between faith and ratio. Faith must give an explanation of itself to reason. The mystery must give way to fact. Religion must give up the haughty and domineering attitude it has long maintained towards science. Freedom of thought must have a more expansive place. The Church must learn to stay within its chosen domain and stop oppressing scientists and philosophers.

Pope John Paul II addressed the Vatican Observatory in the presence of scientists and theologians from various countries, more than eighty years after Pius X's efforts to counter modernism. The Pope recognized the increasing efforts to foster a deeper understanding of religion and science, encompassing their capacities and challenges, with particular emphasis on recognizing areas of common ground. Religion and science have identified interrelated issues of great importance to the broader human community, to which both contribute. The collaborative search should rely on transparency and rigorous dialogue, which should be broadened and improved in visibility and range (Thompson 2009, XVI). Based on Pope John Paul II's speech on openness and critical exchange, the author develops the idea of cooperative rationality to establish a new entanglement between religion and technology that considers the rationality of purpose. Any conception that involves the rationality of goals brings the goals and methods of achieving them to a more universal level of abstraction, for the good of all humanity. The core concept of this entanglement entails fostering a connection grounded in an innovative, inclusive, transparent, analytical, compassionate, and collaborative dialogue concerning the essential challenges of human existence and their potential resolutions. These factors do not ensure that the issues will be addressed logically, collaboratively, and compassionately. Engaging in logical discourse fails to ensure the implementation of logical behavior.

Regardless, the presence of these traditions is an essential prerequisite for logical and collaborative behavior. Religionists should not regard criticism and doubt as evil or unfriendly. Scientific development relies on continually scrutinizing and enhancing prevailing hypotheses, whereas religious individuals should avoid reacting defensively to criticism.

## **2. Faith and Reason**

The idea of faith-seeking understanding (*Fides quaerens intellectum*) has been a theological theme for a long time. We can trace an idea older than St. Augustine's: Faith seeks; understanding finds (Augustine, *De trinitate*, 15.2: *fides quaerit, intellectus invenit*). Many religious traditions extol faith as a virtue. In the Christian tradition, faith in God revealed in Christ is the ultimate virtue (Swinburne 2005, 4). Faith relies on reason as

its underlying logical basis. The concepts inherent in Scripture serve as the foundation for our intellectual pursuits, as divine revelation comes to us through Scripture (Augustine, Letter 120:2; Aquinas, ST. II-II, q. 4, a. 8, ad 3). Thus, our entire theological knowledge of God begins with the act of faith in God's revelation of His being (Gilson 1993, 8). Faith first and uniquely understands the object of intelligence before intelligence understands the object. However, faith without reason becomes strange because the interpretation of Scripture uses it. The proper use of reason in all matters about God, then, is to presuppose that the reception of divine revelation precedes rational or philosophical endeavors (Gilson 2019, 115; Gilson 1963, 27). That means that belief in God is the factual basis, even though human beings do not have complete criteria for what that basis is (Plantinga 1983, 78), because in matters that reason is incapable of understanding, faith explains. Faith does not aim to create statements that require our agreement, but rather, faith directly connects with the subject that the words indicate. Hence, the act of confirming the presence of God by faith is distinct from confirming it through intellectual argument. The believer's proclamation of his faith involves disseminating God's wisdom through divine revelation. Faith is a theological attribute that has its source in God and is oriented toward Him (Gilson 1993, 9).

It is essential to understand that, as an act of faith, we should not see it as a decision separate from ordinary life. Faith is not an act that is only required of individuals when faced with the task of accepting revealed truth. Believing is such a natural and essential process of the mind that it is difficult to imagine human life without it. St. Augustine defined *belief* as thinking with assent (*credere est cum ascension cogitare*) (Gilson 1967, 28). In epistemic studies, the rationality of everyday beliefs that we consider rational presupposes arational commitments (Pritchard 2022, 1). According to Alston's view, knowledge is justified belief (Alston 1992, 9). Belief, thus, is such a standard step for the mind that it is a *sine qua non*-condition of it. Although belief replaces a lack of direct knowledge, there is nothing unreasonable about it. Belief is based entirely on the credibility of a particular testimony, whose value is proportional to the value of the rational investigation we have submitted to that testimony. We believe things our senses cannot grasp if the evidence presented for them seems adequate (Augustine, *De trinitate* 13:2). Knowledge is of two types: knowledge of things seen and knowledge of things believed. Knowledge of things seen and knowledge of things believed. In things we have seen, we bear witness; in things we believe, others bear testimony that causes us to agree.

Nevertheless, belief remains a valid epistemological method. Beliefs are the cognitive component of the human mind; knowledge also has the same component. The main distinction between them is in their origin

(Gilson 1967, 28). According to Aquinas' definition of faith (Aquinas, ST, II-II, q. 2, a. 9; Alston 1992, 6), faith is the willed acceptance of Divine Truth. Faith is essentially a cognitive action, precisely the act of submitting to Christ, which entails a certain level of understanding of His teachings and message. Nevertheless, this type of knowledge is deficient in the essential element of all knowledge, which is substantiating its goal (Ceglie 2017, 235). Since the object of faith is intangible, only free will acting under the influence of divine favor can express faith. According to Aquinas, the elements that make up faith go beyond human rationality. Thus, these truths remain unknowable to humans unless God discloses them. When a person agrees with the beliefs of faith, they obtain a supernatural force that influences their inner self. This force is God (Aquinas, ST, II-II, q. 6, a. 1). Aquinas argues that this principle motivates believers to willingly accept revelation as a direct invitation from God himself (Aquinas, ST, II-II, q. 2, a. 9, ad 3). However, God is the ultimate and appropriate source of faith.

However, God, being the ultimate source of faith, does not negate the capacity for rational thinking. According to Aquinas (1952, 436-437), God operates following the inherent characteristics of everything. Regardless of whether they support the inflationary or deflationary interpretation of pre-motion, Thomists assert that God exerts influence on the faculties and motivates them to perform virtuous actions per His providential design. The intellect serves as an instrumental cause that, despite being under God's influence, has the capacity to act and produce good deeds—but only to the extent that God directs it. Both divine agency and human free will contribute to the generation of virtuous deeds (Torrijos-Castrillejo 2022, 4).

Augustine, however, tried to maintain a balance between faith and reason. According to him, faith rests on reason; of all the living creatures created by God on earth, only man is capable of faith because only he has reason (Augustine, Letter 120.3–4). So, we can postulate that faith is possible when humans have reason. To examine this concept, we can inquire whether non-rational living entities can have faith. In the study of the philosophy of reason, faith is a property of mental states. This mental property that makes up human consciousness consists of belief, understanding, and intention. The act of separating one of them will eliminate consciousness. It is appropriate, then, to describe faith and reason as the two wings on which the human spirit flies to contemplate the truth (Klein 2003, 17). The main argument posits that religion and reason are inherently interconnected; reason is an innate characteristic of human beings and must reestablish its foundation in faith. (Sjöstrand 2021, 173). The mind, by which man knows what is intelligible, is the mark God left on his handiwork. It is in the mind that God creates man in his image and likeness (*imago Dei*). If we despise or hate the intellect, then we despise the image of God in us, which is the source of our superiority over all other

living beings. The work of the intellect is good, healthy, and essential because, if used adequately, it can prove the existence of the ultimate being that everyone calls God (Gilson 1993, 13). Reason is used as a believer's orientation to confirm what he already believes. Therefore, reason can be beneficial if its ultimate objective is toward the reverence of God and people (Ceglie 2017, 242).

### **3. Human Intellect and Artificial Intelligence**

In the ontological hierarchy, humans are the only composite beings combining matter and non-matter (Wood 2020, 256). Humans are the only creatures that have a body and an intellect. Therefore, humans bridge the gap between material and immaterial beings (DeYoung et al. 2009, 13). Thomas Aquinas followed Aristotle's doctrine of hylomorphism, which holds the view of the substantial unity of man (Copleston 1993, 375). Each human being is a substance that includes the union of matter and form, intimately interwoven with the physical substance observable in sensory experience (Gilson 1960, 203–204). The human soul is the form of the body (*forma corporeitatis*) that gives it uniqueness and the basis of actuality for the body. Thus, the act of being in the body derives from the form of the soul as its principle. In the general structure of the universe, humans are the only bodily beings with a soul as their substance. As the substantial form, the soul is the principle by which we first and foremost have intellectual understanding (Silalahi 2022, 121). This intellectual understanding is the source that moves the body through the will, so human actions involving consciousness are processed here. The principle of cognition in this intellectual part of the soul is where reasoning occurs since humans are composite beings consisting of body and soul. Therefore, the human intellect is discursive through movement and argument (Aquinas 1952, 417–418). That is why human intellectual understanding is imperfect: humans do not understand all things, but in matters of understanding, humans move from potentiality to actuality (Aquinas 1952, 406-407).

Daniel Dennet characterizes human cognition as an intricate structure of numerous interwoven elements incorporating diverse patterns. Certain elements have existed since the beginning, while others have only recently emerged with the latest technological advancements (Dennett 1996, Viii). Mental states underlie human behavior (Searle 1980, 9; Berger 2014, 392). The intentionality ascribed to such mental states is the power of reason that represents things, properties, and states (Pinkard 2012, 17). In the philosophy of mind, intentionality has two types: intrinsic (or original) and derived. Intrinsic intentionality is about the existence of our thoughts, our beliefs, our desires, and our intentions. This original intentionality belongs

to humans because they are living organisms that, under specific structures and conditions, are capable of producing perception, action, understanding, learning, and other phenomena of intentionality (Searle 1980, 10). This capacity for intentionality in humans is related to the possession of the power of causality. *Original intentionality* is the natural nature that humans have as living beings. Particular artificial objects, such as words, sentences, books, maps, photographs, and computer programs, exhibit a constrained and secondary existence that is the result of derivative intentionality. The presence of derived intentionality is predominantly contingent upon human cognition. This intentionality is a human-made representation of the original, underlying intentionality that drove its creation. According to Searle's thesis, artificial intelligence is a product of human intelligence.

Artificial intelligence is a formal analog of the human brain due to a formal program with several inputs and outputs. Artificial intelligence is a suitable framework for intentionality only when humans program it. The proportionate locus of intentionality is only human (Searle 1980, 9). A purely formal model as projected by a computer program will never be adequate for intentionality because formal properties are not in themselves constitutive of intentionality (Searle 1980, 11). On the other hand, we often assume that a robot with a specific artificial intelligence will behave like a human. Then, it must have mental states as expressed through its behavior. Some scientists are often mistaken in assuming that artificial intelligence has a mental mechanism. It is empirically implausible to suppose that artificial intelligence can duplicate the causal power of neurons completely in silicon (Searle 1997, 393), at least with current technology (Bickhard 2021, 61). The causality results from its physical substance. However, like human behavior, he remains irrelevant, for he cannot set intentions and goals for himself except for several computer programs inputted to him. Human mental processes go beyond computational processes and formally defined elements whose operation is described as an implementation of a computer program (Searle 1980, 10). Even when human physiological recognition was minimal, human knowledge and abilities were recognizable. Protagoras had produced the famous thesis that man is the measure of everything. Socrates asked humans to recognize themselves (Kapp 2015, 17). Meanwhile, Aristotle proposed the soul as the driver of living things (Polansky 2007, 7). Artificial intelligence, albeit derived from human cognition, is a mere reflection of it.

Hence, its very existence depends on human cognition, and artificial intelligence will never exist without the original cognition. In ontology, something incidental can never surpass something essential because something incidental exists and is bound to the essential. Actual mental phenomena depend on the human brain's physical and chemical

properties. The causal capacity of intentionality is only possible because of the human brain, at least with current technology; a computer program at any level of intelligence needs help to set the purpose of its existence and make plans for itself. Such capabilities would be challenging to engineer, and a more likely strategy would be to create artificial beings with animal-like intelligence (Frankish 2021, 78). Computer symbols, including signs and sounds, lack inherent meaning. The symbol is endowed with meaning by a conscious person (human) possessing intentionality (Horst 2011, 64). Because no program by itself is sufficient for intentionality (Searle 1980, 14), The disparity between computer programs and the human mind lies in the fact that computer programs are solely syntactic.

Meanwhile, the human mind is more than just syntactic. The human mind is semantic in the sense that it has more than just a formal structure; it has content (Searle 1984, 31) and representations of meaning (Horst 2011, 61). Because the human mind has content and representation of meaning, in the process of evolution, it has a preference to obtain energy (for metabolism), structure (for growth), and information (for guidance) in various environmental conditions (Sayre 2015, 122). Energy, structure, and information are forms of negentropy in life. Such negentropic flexibility means adapting living things over generations to widespread changes in general living conditions. Adapting behavior to the contingencies of an organism's local environment allows it to change its behavior patterns to adapt to its living environment. The physiological structure proves that the human mind can respond to various realities. Humans have freedom in their actions; these preferences arise from the ability of their intellect (Silalahi; Matatula 2023, 224). The structure that makes up this mental state is what artificial intelligence does not have because it is an artifact of human reason.

#### **4. The Entanglement of Religion and Technology Based on the Cooperative Rationality**

This section formulates a new framework that establishes the relationship between religion and technology based on reason. Faith does not originate from reason, although belief in something is possible because one has reason. Faith and reason, although conceptually different, share a unity in structuring human consciousness. Meanwhile, technology is an artifact of human intellect derived from human intelligence. Initial intelligence established the existence of technology through human reasoning. That means the existence of technology depends on the existence of human beings. So, based on reason, faith, and technology, they have different degrees. Faith can be said to be equal to reason, and in specific contexts, faith transcends reason, while technology is a derivative



of human reason. If humans have no original intelligence in this world, then artificial intelligence will never exist. The perspective above also critiques Derrida's claim that religion and technology share an exact origin.

According to Derrida, religion originates from two primary sources: the encounter with the sacred or holy and the underlying conviction in the concept of change. Derrida argues that technology, despite its seeming distinctions, shares a common foundation with religion, as both are rooted in these essential ideas. Derrida posits that technology, similar to religion, assumes a fundamental faith, belief, conviction, or similar conviction—an initial and fundamental faith that serves as the quasi-transcendental prerequisite for all knowledge (Björn 2021, 173–174). Thus, Derrida reduces technology, which he considers religious, to religion. However, we should not understand this religion as an authentic religion but as a false religion called technicalism. Because technology's ultimate meaning is limited and subject to change, it distorts natural religion. Authentic religions, in contrast, have significant symbolic connections that guide individuals toward a transcendent and transforming reality capable of surpassing their limitations, thereby providing them with a genuine existential purpose.

However, despite the fact that belief influences human knowledge and, to some extent, belief comes before understanding, human belief does not exist in isolation. In the philosophy of reason, belief is a mental property of the mind that constitutes human intentionality. So, in believing something, the intellect functions to organize the relationship between mental properties. As a result, belief is an intentionality and reason-driven unity of action. Belief cannot exist without intellect, and vice versa. The idea of separating the two serves as a conceptual foundation. However, the act of existence itself presupposes complexity, for there is an inextricable link between the two. This idea of separation does not imply that reason is above all else. In specific contexts, the human will to believe that something controls reason and shares its freedom. Even a man's will to believe something can override the reasoning of his intellect. However, this does not mean that it is entirely independent of reason. The reason offers a rationale for beliefs.

In this paragraph, we will prove that the existence of reason is good and is, therefore, perfectly adequate to serve as the bond that binds religion and technology. Human intellect is teleologically good. According to the convertibility thesis, goodness and existence are the same thing (DeYoung et al. 2009, 24–25) and differ only in notion. The essence of goodness is that it is desirable. Therefore, goodness is what everyone wants. However, something is desirable only to the extent that it is perfect, and something is perfect to the extent that it is in actuality (Aquinas 1952, 17). Something is actual insofar as it exists (Aquinas 1952, 21). It is

existence that makes things actual. Then goodness and existence are the same. It is just that goodness presents the aspect of desire, which is nonexistent. Thus, human reason has goodness to the extent that it exists. According to Aquinas (1952, 694), an existence is lacking in goodness if it lacks something that results from the fullness of its existence. The fullness of being is the instrument that causes a being to be good. Therefore, the intellect has goodness insofar as it is full of being. Whereas it lacks goodness to the extent that it lacks something resulting from the fullness of being, Thus, the intellect is whole to the extent that it corresponds to the essence that constitutes its existence. The intellect can be good insofar as it corresponds to the purpose of its existence, so that the intellect can be an adequate consideration for the object that it is judging.

In order for individuals worldwide to have the most incredible opportunity to achieve what they find significant in life, they must approach the challenges they face logically and collaboratively (Maxwell 2007, 61). The majority of significant social issues related to interpersonal connections arise not due to a lack of information and technology but rather due to a widespread failure to establish a tradition of problem-solving based on cooperative rationality, which would empower individuals to achieve meaningful lives. For cooperative rationality to become an essential aspect of existence, religion and technology must focus on developing cooperative rationality (Maxwell 2007, 62). Religion and technology's role is to elucidate life's challenges and propose and evaluate potential resolutions. Technology should not rely solely on scientific pursuits disconnected from religious considerations. No matter how well organized, an inquiry will inevitably be unsuccessful if it lacks an understanding of what is truly valuable in life. Technology extends beyond scientific subjects and the scientific community, encompassing what is suitable based on rationality. The appropriate way to think involves considering the ideals of life as a shared endeavor. The absence of collaborative rationality in human affairs can lead to the development of novel technologies that have the potential to bring about positive outcomes but are instead utilized in manners that inflict human misery and injustice (Maxwell 2007, 65). Artificial intelligence enables affluent nations to exploit the resources of underprivileged countries in the developing world to a certain degree. Digitization facilitates the emergence of significant disparities in income and influence, representing a severe manifestation of global injustice.

The world must find a more rational and cooperative way of responding to different issues. Today, destructive propaganda fills the world. The rationality that promotes cooperative action serves as a verification of various data supplies so that confusion and discomfort as a result of manipulation can be avoided (Rognon 2013, 102). Technology

disregards this crucial requirement as it confines itself solely to acquiring knowledge, neglecting human values. The advancements resulting from technological progress, regardless of their noble intentions and possible benefits to humanity, will inevitably be utilized for purposes of imprisoning, enslaving, and killing.

On the other hand, the Church feels besieged and threatened by the massive presence of information technology, so it closes itself to cooperation because of secular values that it considers heretical. However, at a certain level, it must be recognized if the church uses digital products. So, it is time for the church to reconcile itself with technology, just as "God reconciled Himself to the world" (2 Cor. 5:19). The church and technology should engage in passionate, critical, open, and respectful cooperation. This cooperation is essential because both benefit humanity enormously and are important aspects of human culture. As cooperation and the mutual search continue, there will be a growth toward mutual understanding and a gradual unfolding of common concerns that will form the basis for further research and discussion. Continued cooperation that develops in depth and breadth will prevent one-sided reductionism. The search for intellectual coherence and collaboration will encourage the discovery of their shared values and experiences amidst their particularities. This situation leads to the understanding that the insights and achievements of one are often essential to the progress of the other. Within the expansive, intricate, varied, interconnected, and swiftly evolving realm of human society, there exists a possibility to cultivate more logical, collaborative, and compassionate approaches to tackling significant societal issues through ongoing cooperation over the methods by which these problems arise. With cooperative rationality, religion and technology can find complex, coordinated actions that allow both to benefit. Thus, organized scientific inquiry is not merely for taking on intellectual tasks but also for humanity. Cooperative rationality rests on an essential intellectual concern to pay more attention to technological goals that consider both scientific and human values.

## **5. Conclusion**

Technology arises because of human reasoning, where the goal and the method often need to be revised. Instead of the goal following organically from the method, humans dictate the desired result and then pursue the methods necessary to achieve it. When humans achieve the desired result, the methods used become unimportant. This process produces desirable objects that have no meaning other than the purpose of their creator. This problematic character of the inquiry goal requires a rational approach to finding solutions. Every instance of problem-solving

involves pursuing a goal, but not every instance of goal pursuit is problem-solving. Therefore, problem-solving can be considered a specific instance of striving to achieve a desired objective. The endeavor to engage in innovative, open, public, critical, humanistic, and cooperative discourse over fundamental inquiry issues is to discover logical resolutions. It enables us to adapt the concept of rational problem-solving to create a more inclusive notion. The cooperative rationality method focuses on technical objectives that extend beyond the pursuit of knowledge and encompass rationality and suitability considerations. Rationality encompasses the collective endeavor to attain existence's fundamental principles and objectives. By contemplating broader principles, individuals might get insight into what holds the most tremendous significance for the collective well-being of humanity. The lack of collaborative rationality in the technology creation process may benefit scientists and grant providers but can result in human misery and injustice.

## References

- Alston, William. 1992. *Knowledge of God in Faith, Reason, And Skepticism*. Edited by Marcus Hester. Philadelphia: Temple University Press.
- Anselm. 1995. *Monologion and Proslogion with the Replies of Gaunilo and Anselm*. Translated by Thomas Williams. Indianapolis: Williams Hackett.
- Aquinas, St. Thomas. 1952. *The Summa Theologica of Saint Thomas Aquinas*. Translated by Fathers of the English Dominican Province, Revised by Daniel J. Sullivan. New York: William Benton.
- Aquinas, St. Thomas. 1987. *Faith, Reason and Theology, Question I-IV of His Commentary On De Trinitate of Boethius*. Translated by Armand Maurer. Canada: Pontifical Institute of Medieval Studies.
- Aquinas, Thomas. 2002. *The Treatise on Human Nature Summa Theologiae Ia 75-89*. Translated with Introduction and Commentary by Robert Pasnau. Indianapolis/Cambridge: Hackett.
- Augustine. 2002. *Augustine: On The Trinity Books 8-15*. Translated by Stephen Mckenna. Cambridge: Cambridge University Press.
- Augustine. 2003. *The Works Of Saint Augustine A Translation For The 21<sup>st</sup> Century Part II Volume 2: Letters 100-155*. Translated by Roland Teske. New York: New City Press.
- Berger, Jacob. 2014. Mental States, Conscious and Nonconscious. *Philosophy Compass*, 9 (6): 392-401. Doi.10.1111/phc3.12140
- Bickhard, Mark H. 2021. *Emergent Mental Phenomena in The Mind-Technology Problem: Investigating Minds, Selves and 21st Century Artefacts*. Switzerland: Springer Nature. <https://doi.org/10.1007/978-3-030-72644-7>
- Sjöstrand, Björn. 2021. *Derrida and Technology: Life, Politics, and Religion*. Translated

**U. P. C. Silalahi, S. Y. Hasibuan, G. Matatula**  
Religion, Technology and Cooperative Rationality

by Stephen Donovan. Switzerland: Springer Nature.

Ceglie, Roberto di. 2017 Faith and Reason: A Response to Duncan Pritchard. *Philosophy*, 92 (2):231-247. Doi: <https://doi.org/10.1017/S0031819116000656>

Copleston, Frederick. 1993. *A History of Philosophy Volume II Medieval Philosophy*. New York: Doubleday.

Dawes, Gregory W. 2016. *Galileo And the Conflict Between Religion and Science*. Abingdon, Oxon: Routledge.

DeYoung, Rebecca Konyndyk., McCluskey, Colleen., Van Dyke, Christina. 2009. *Aquinas's Ethics: Metaphysical Foundations, Moral Theory, and Theological Context*. Indiana: University of Notre Dame Press.

Draper, John William. 2009. *History of The Conflict Between Religion and Science*. Cambridge: Cambridge University Press.

Frankish, Keith. 2021. *Technology and the Human Minds in The Mind-Technology Problem: Investigating Minds, Selves and 21st Century Artefacts*. Switzerland: Springer Nature. <https://doi.org/10.1007/978-3-030-72644-7>

Gilson, Etienne. 1960. *Elements of Christian Philosophy*. New York: Doubleday.

Gilson, Etienne. 1967. *The Christian Philosophy of Saint Augustine*. Translated by L. E. M. Lynch. New York: Vintage Books.

Gilson, Etienne. 1993. *Christian Philosophy: An Introduction*. Translated by Armand Maurer. Canada: Pontifical Institute of Mediaeval Studies.

Gilson, Etienne. 2019. *History of Christian Philosophy In The Middle Age*. Washington: Catholic University of America Press.

Horst, Steven W. 2011. *Symbols, Computation, and Intentionality A Critique of the Computational Theory of Mind*. California: Create Space.

Kant, Immanuel. 1985. 'What Is Enlightenment' (1784), in *Foundations of the Metaphysics of Morals and What Is Enlightenment?* Translated by White Beck. New York: Macmillan.

Kapp, Ernst. 2015. *Grundlinien Einer Philosophie Der Technik*. Hamburg: Felix Meiner Verlag.

Klein, Terrance W. 2003. *How Things Are in the World Metaphysics and Theology in Wittgenstein and Rahner*. Wisconsin: Marquette University Press.

Maxwell, Nicholas. 2007. *From Knowledge to Wisdom: A Revolution for Science and the Humanities*. London: Pentire Press.

Mcinerny, Ralph. 2006. *Praeambula Fidei Thomism and The God of The Philosophers*. Washington: The Catholic University of America Press.

Plantinga, Alvin. 1983. *Faith and Rationality: Reason and Belief In God*. Indiana: University Of Notre Dame Press.

Pinkard, Terry. 2017. *Hegel's Naturalism: Mind, Nature, And the Final Ends of Life*. Oxford: Oxford University Press.

Polansky, Ronald. 2007. *Aristotle's De Anima*. Cambridge: Cambridge University

Press.

Pritchard, Duncan. 2023. Quasi-Fideism and Epistemic Relativism. *Inquiry*, 31 (3):1-23. Doi: 10.1080/0020174X.2022.2135820

Rognon, Frédéric. 2013. *The Reception of Jacques Ellul's Thought in French Protestantism in Jacques Ellul and the Technological Society in the 21st Century*. Dordrecht: Springer Science+Business Media.

Sayre, Kenneth M. 2015. *Cybernetics And the Philosophy Of Mind*. London: Routledge.

Searle, John. R. 1980. Minds, Brains, And Programs. *Behavioral and Brain Sciences*, 3 (3): 417-457. <https://doi.org/10.1017/S0140525X00005756>

Searle, John R. 1997. *Breaking the Hold: Silicon Brains, Conscious Robots, and Other Minds in The Nature of Consciousness: Philosophical Debate*. Edited By Ned Block, Owen Flanagan, And Guven Giizeldere. Massachusetts: The MIT Press.

Silalahi, Ubat Pahala Charles. 2022. *Pernikahan Terbuka Dalam Perspektif Synderesis Dan Hukum Kodrat St. Thomas Aquinas*. Yogyakarta, Universitas Gadjah Mada.

Silalahi, Ubat Pahala Charles and Matatula, Gloria. 2023. Human Freedom, Habits and Justice. *Biblica Et Patristica Thoruniensia*, 16 (2): 221-231. Doi 10.12775/Bpth.2023.012.

Spinoza, Benedict De. 2007. *Theological-Political Treatise*. Edited by Jonathan Israel. Cambridge: Cambridge University Press.

Swinburne, Richard. 2005. *Faith and Reason*. Second Edition. Oxford: Clarendon Press.

Thompson, Phillip M. 2009. *Between Science and Religion. The Engagement of Catholic Intellectuals with Science and Technology in the Twentieth Century*. Maryland: Lexington Books.

Torrijos-Castrillejo, David. 2022. A Thomistic Account of Human Free Will and Divine Providence: Pedro de Ledesma and the De Auxiliis Controversy. *Religions* 13 (375): 1-9. <https://doi.org/10.3390/rel13040375>

Wood, Adam. 2020. *Thomas Aquinas on The Immateriality of The Human Intellect*. Washington: The Catholic University of America Press.

Zafirovski, Milan. 2010. *The Enlightenment and Its Effects on Modern Society*. New York: Springer-Verlag.