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CHAPTER I

Revitalizing God's Grace Amidst Artificial Intelligence Disruption

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Abstracts

Artificial intelligence (AI) disruption impacts human belief systems in daily life. Researchers have discussed the utilization of AI from various perspectives. However, it is found that the study of AI about solidarity with marginalized communities is inadequate. This paper aims to analyze the power of God's grace that triggers the solidarity attitude of the Catholic Church towards marginalized communities. The novelty is identifying the power of grace in sparking the solidarity of the Catholic Church. The finding is that revitalizing God's grace is an ethereal collaboration of the Catholic Church with actual grace. The transcendental collaboration becomes a framework for revitalizing grace in inner and social life. The transcendental collaboration triggers a transcendental motivation: the willingness to get involved and act in love. The belief system and the internal psychology connection are transformed in transcendental collaboration. The transformation occurs from the exploitation-exclusive paradigm to the paradigm of existential benefits to support marginalized communities. Revitalization of grace becomes the actualization of the Catholic Church as the *Grund sacrament* to bring the grace of salvation to marginalized communities. Future research will focus on the application of grace revitalization in the pastoral of the Catholic Church in the field of AI technology.

Keywords: artificial intelligence, Catholic Church, grace, revitalization, transformation.

Introduction

God's grace is the divine power in human nature that enables it to perform social virtues for the glory of God. Amid artificial intelligence (AI) disruption, the Catholic Church has a calling to bear witness to the importance of God's grace. Testimony to the experience of grace can provoke inspiration that motivates the social attitudes of AI stakeholders to protect human life. This effort emphasizes that the Catholic Church is trying to be a sacrament for the world. This paper's

term Catholic Church refers to all Catholics, stakeholders, general users, and AI expert users. The following illustrates the massive use of AI even by the Catholic Church.

AI technology has been utilized in almost all aspects of human life. In the realm of governance, the Japanese government initiated the Super Smart Society 5.0 program in 2016. This program integrates people's physical lives with cyberspace (Gladden, 2019). AI technology has been used in internet-based sales systems, smart homes, and voice services (SIRI and Alexa) on mobile phones. All of this is to provide convenience in meeting the needs of its users (Mobayo et al., 2021). Mentoring systems, innovative learning, and social robots use AI technology to influence learning and education activities. These include virtual facilitator systems, online learning environments, learning management, and learning analytics (Ahmad et al., 2021). In addition, AI technology has been implanted into various innovative automotive navigation systems in automobiles, the military, and the industrial world.

The Catholic Church has implemented AI technology in various aspects of life. The Catholic Church has utilized WI-FI, sound system equipment, projectors, computers, and mobile phones for its mission, proclamation, and social activities. Users utilize some of these to access social media platforms (TikTok et al.) and AI platforms for managing big data or information in cyberspace (chatbots / AI chatbots such as ChatGPT and Jeanni). One of the Catholic Church's innovations in AI technology is Magisterium AI (MAI).

The MAI platform utilizes AI technology for the teachings and news of the Catholic Church. Magisterium AI is one AI platform that maintains the truth of Catholic faith content. The Catholic Church found errors, mistakes, and discrepancies in the truth of Catholic teachings provided by AI. Answers given by AI chatbots are sometimes hallucinatory by gathering false or partially false information (Giangravé, 2023). The Magisterium on AI signifies the Catholic Church's vigilance and wisdom towards AI's use and adverse effects.

Technological development has both positive and negative effects on human life. While some Eastern European countries have benefited from utilizing AI to solve economic and service problems, they are concerned about its adverse effects (Vasilievich Vinichenko et al., 2021). Concerns about the impact of AI use are evident in critical reviews of countries' development programs and expert users. Using AI in sustainable development programs provides relatively more positive benefits than negative impacts. However, the computational sophistication used

consumes much energy and produces a very high carbon footprint that is not environmentally friendly (Vinuesa et al., 2020). A significant concern is that the ease of automation provided by AI may create vulnerabilities and that users, even expert users, may be unable to understand and explain AI-generated decisions to others (Lockey et al., 2021).

Technologists have set an imperative tone against the adverse effects of technology. Humans must relinquish their will and not just property rights to the worst technologies (Joy, 2000). Concerning AI, Christian thinkers have raised ethical and moral concerns about the development of AI technology (Brittain, 2020; Burdett, 2023; Giovan Pugeda III, 2021; Green, 2018).

Amidst the many discussions on AI from Protestant and Catholic thinkers, Levy Checketts, head of the Pontifical Council for AI in Asia, has addressed the impact of AI from the perspective of Catholic social teaching to understand the experience of poverty. According to him, AI technology operates under the dominance of bourgeois and enlightenment epistemologies that ignore the socio-economic circumstances of people, including the poor, the disadvantaged, and the marginalized. In addition, AI algorithms are not equal to human judgment (Checketts, 2022). This means that until now, there has been a gap in discussions about AI technologies that do not accommodate the experiences or ways of thinking of disadvantaged or marginalized communities.

Although many ethical studies and recommendations for AI development are human-centered and not merely technological, very few ethical guidelines and principles consider solidarity (Luengo-Oroz, 2019). In addition, the Rome Curia of the Pontifical Academy for Life has published the guidelines of the Rome Call for AI Ethics (2020). The position of this paper is to fill the theological gap by analyzing the power of God's grace that triggers the Catholic Church's acts of solidarity with marginalized communities. The aim is to identify the power of grace that moves the Church to act in solidarity. This gap in AI technology calls for the Catholic Church, as the Grundsa comment (essential sacrament), to bring God's grace to marginalized communities. As the Grund sacrament, how can the Catholic Church bring grace to marginalized communities amid AI disruption?

Literature Review

Interdisciplinary Discussion on the Concept of God's Grace

This paper focuses on the Catholic faith perspective on God's grace. Various discussions on grace identify that grace's power applies not only to the inner life

but is also isolated from the social dimension. The spark of grace, the social dimension of grace in the Catholic Church, must be revived amid AI disruption. A literature review on grace about dogmatic, metaphysical, sacramental theology, and psychological teachings provides direction for the design of this paper's theoretical framework.

The dogmatic teaching of St. Thomas Aquinas in Summa Theologica recognizes two aspects of God's grace that move the human soul to perform supernatural virtues. The two aspects of God's grace are gratia gratum faciens (sanctifying-habitual grace) and gratia gratis data (unconditional-actual grace). Both are inseparable and reciprocal. In faith, Catholics received habitual grace through baptism; it abides, sanctifies, and makes man pleasing before God. While actual grace operates to prepare and direct the human soul to habitual grace and remain in it, this grace is effectual when humans are willing to collaborate with God's grace (Aquinas, ST I-II, q.111, a.2). Based on these reflections and dogmas, the eruption of God's grace has a sacramental dimension with aspects: internal (collaboration) and social (social-Christian attitude).

Some authors metaphysically analyze God's grace in Himself. According to Neil J. Ormerod, through the grace of divine initiative, the triune God calls human beings to engage in a supernatural order. What happens is the economic providence of the Triune God (Ormerod, 2019). This means that humanity's natural involvement in God's providence is the essence of the work of salvation. With Karl Rahner's perspective, Brandon Peterson defines God's grace as the inner reality that unifies the world through Jesus Christ, who takes humans' place through the cross of salvation (Peterson, 2020). Ontologically, human salvation refers to the involvement of Catholics in taking part in the salvation of humanity.

Several authors have theologically analyzed the grace of God to show the urgency of the outbreak of God's grace in the social dimension that stems from the reception of the Seven Sacraments in the Catholic Church. E.P.D. Martasudjita said that daily life should be an extension of the life of Christ celebrated and received by Catholics through the Sacrament of the Eucharist (Martasudjita, 2013). To understand the work of grace in a concrete way, Attilio Rossi compares the thought of the Church as a sacrament according to Edward H. Schillebeeckx with Karl Rahner's thought of the Church as a sacrament which is the unity of the people of God and not only unity with God. His concern over the separation of the work of grace from human history resulted in the thought that the Church as a sacrament is integrated into world history to the extent that the Church manifests and carries out God's love for the world (Rossi, 2017).

Meanwhile, Adrianus Sunarko as bishop and chairman of the theological commission of the Indonesian Bishops' Conference (2022-2025) argues that the Catholic Church shares grace in the liturgy of the seven sacraments. From a historical perspective, he saw that the influence of grace in the inner self is overly reflected so it is alleged that the effectiveness of grace is separated from its historical aspects. He suggests that studying grace in the faithful as recipients of grace involves an anthropological dimension (Sunarko, 2018). Sunarko refers to the outpouring of grace as concrete action, not mere cultivation of the inner life. The historical dimension of grace must be realized in humanity's sphere. There is a need for a theory of the realization of grace in the social dimension through acts of love for the unity of the world.

Researchers have discussed the power of God's grace in psychology. Robert Emmons et al. understand that divine grace can be experienced humanly. God's grace within humans provides the potential to enhance human psychological development (Emmons et al., 2017). Likewise, Daniel K. Judd et al. found a positive relationship between God's grace and mental health (Judd et al., 2018). With ground theory, Judd et al. found that God offers a grace relationship with Himself and God's grace expresses God's unmerited love. Regarding human sin, grace is an expression of God's unmerited love through the redemptive work of Christ, who died on the cross to forgive the sin that severed humanity's relationship with God (Hall & McMinn, 2021). Thus, the genuine outpouring God's grace in human beings provides psychological expressions.

Human Cooperation with God's Grace in Catholic Theology

The Catechism of the Catholic Church states that God's plan of salvation is accomplished through the cooperation of His creatures (KGK, 306). Through the Sacraments, the reading of Scripture, and spiritual exercises, the Catholic Church receives the grace of God. God's grace is bestowed upon the Catholic Church to align performance of her duties with God's will. God as the first cause works in and through the second cause, namely human beings (KGK, 308). God's grace gives human beings existence, dignity, and to act independently. Therefore, human beings can be the cause of others by cooperating to perform God's will.

Man's cooperation with God's grace makes him His co-worker. Man can be a co-worker of God who is unaware of his divine plan. Believers can realize God’s grace operating through a life of prayer, suffering, and works of the hands (KGK, 307). Karl Rahner says that man can realize the Holy Mystery (God) in his

transcendental existence. The awareness of God can be experienced amid world affairs, concerns, fears, and hopes. When man accepts that He is from something other than himself, he has a transcendental experience (Rahner, 1987).

Man has the freedom to decide to cooperate with God. In this sense, freedom is also God's grace. God gives the possibility to collaborate freely in His providence. Man is responsible for ruling or conquering the world (KGK, 307). Rahner points out the existence of transcendental freedom. This freedom is transcendental; transcendental freedom operates in the act of reflection and is related to the categorical. Sometimes freedom towards God is understood categorically as human beings encounter God mysteriously in each other. Freedom towards God is not a matter of freedom to do worldly activities but rather the freedom of man to accept the existence of God's self that has been inherent in His existence. (Rahner, 1987).

Grace can be efficacious in the free acceptance of Him. Grace transforms the basic structure of man. The power of grace enables man to know the existence of God in the form of mystery (Rahner, 1987). Transformation makes man's relationship with God close. His life is increasingly adapted to Christian teachings and morals. This is the actual power of grace for self-sanctification. Lumen Gentium states that the original grace of sanctification is participation in the divine life (LG, 2). Thus man's awareness of God's grace enables him to cooperate and have a close relationship with God. In this sense, grace transforms and perfects human nature to contribute to the progress of society and the fulfillment of God's will.

Conceptual Framework for Revitalizing Grace

Based on the literature search, this paper draws elements that can trigger God's grace in the social dimension. From Aquinas' perspective, grace is efficacious through the transcendental collaboration of human beings with grace.

Diagram 3.1. explains that transcendental collaboration is necessary to awaken the will of Catholics. God's grace triggers inspiration that motivates the Catholic Church to get involved, act lovingly, and transform psychologically. Involvement, loving action, and psychological transformation depend on the faithful will of the Catholic Church. Through the Church's willingness to collaborate, God's grace works in nature so that the Church becomes a means of salvation for the life of all humanity amidst the disruption of Artificial Intelligence. This conceptual framework is the concept of revitalization God's Grace.

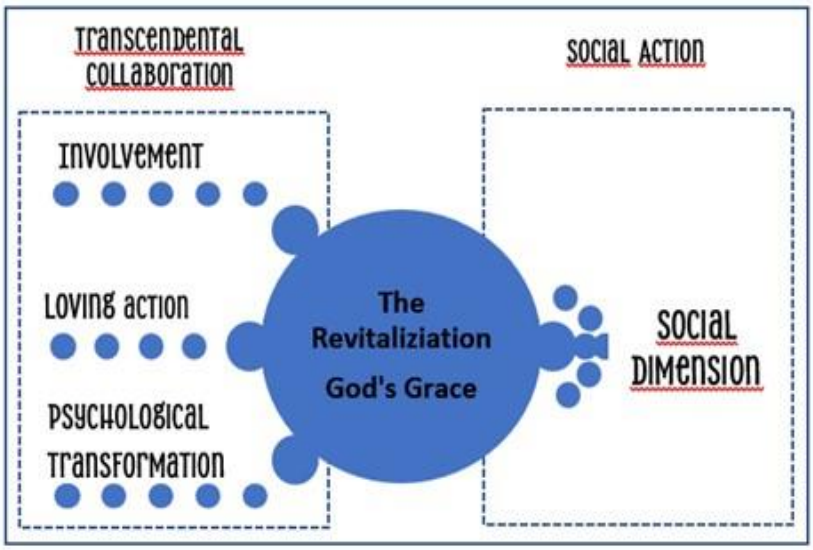


Figure 1. Revitalization God's Grace

DiscussionTranscendental Collaboration with God's Grace

The transcendental collaboration states a concept of partnership as a spiritual response to an act of solidarity with marginalized society. Miguel Luengo-Oroz said that solidarity in AI technology needs attention and becomes an ethical guideline in its development (Luengo-Oroz, 2019). As a spiritual response, this collaboration needs a religious value. Marcus Mescher emphasized that God's grace must be involved in catholic social teaching including solidarity. The role of God's grace is a cooperative relationship that influences social relations. Therefore, grace inspires moral guidelines to participate in social grace (Mescher, 2019). As Jim Wishloff argues, grace makes it possible for someone to work with great love for one's neighbors instead of a materialistic orientation (Wishloff, 2020).

The transcendental collaboration is the enter button to operate the revitalization of grace. The transcendental collaboration means a harmony of nature and grace. God's grace is needed to transcend the act of human nature for the goodness of mankind. Stephen H. Fields argues that grace enables nature to exercise virtues such as love. According to him, even though grace is not immediately realized, ontologically the act of virtue must have a relationship with God's grace (Fields, 2017).

Transcendental Motivation

Actual grace conditions human will in constructive collaboration with what is pleasing before God. Scripture, the Magisterium, and Tradition reveal Catholics' inner norms and social attitudes that motivate transcendentally. This transcendental motivation is the willingness to be involved and act for the sake of Allah. This transcendental motivation requires actual grace to be in constructive collaboration with God's will.

Michael Stephen Burdett proposed the study of action motivation. In the context of AI, he indicated that the Christian ethical response is still in its early stages, so it requires a broader approach to avoid being unbalanced. He designed a framework of thought through inspiration from philosophical, biological, and theological thinking. In line with the theory of near and ultimate causes, Thomas Aquinas's thinking about human actions is determined by near-term goals (proximate end) and long-term goals (remote end) (ST II-II, q.111, a.3; ST II-II, q.123, a.7). The near-term goal is to analyze the personal and sociopolitical impact of AI on human life. The long-term goal relates to analyzing economic order and God's grace in a technological society (Burdett, 2023).

Near-term goals relate to ethics and AI, as expressed by Andrea Vicini. He discusses social control and AI in light of the Rome Call for AI Ethics document. This document calls for the principles of a more comprehensive ethical framework. According to him, there needs to be a distinction between control and risk ethics. The distinction involves bio-power and bio-politics and reflects human work (Vicini, 2022). Burdett seems to state that quite a lot of discussion from the Catholic side focuses on proximate AI ethical concerns. The church must comprehensively picture its witness in a technological society. The Church needs to consider long-term goals in its ethical studies. This will help the economic order and God’s grace become the Church’s focus (Burdett, 2023).

When considering long-term goals, we should consider the writings of Christopher Craig Brittain. The discussion concerns the problems raised by AI in theological reflection. Equating AI's similarity to human intelligence with the concept of the Imago Dei can lead to misinterpretation. Furthermore, AI operates independently of nature and God's grace (the organizer of life). However, AI cannot relate to God to become Imago Dei and replace God's position as the organizer of life. AI raises ethical issues in the future by replacing human labor, economic structures, and the nature of society. The Catholic Church needs to examine and test the social impact of AI in this space. They must use theology

about the nature of community and moral principles such as love of neighbor (Brittain, 2020).

The study of grace alluded to in Brittain's writing emphasizes the goal of creating justice and love for others in the future. However, we cannot separate this goal from the power of grace. Grace requires a transcendental collaboration at the moment. Without grace, transcendental motivations to protect human dignity from the impact of AI are impossible to emerge. This transcendental motivation is the human will to get involved and act. As a result, humans will remain in the mainstream of the exclusive-exploitation paradigm.

Without eliminating the importance of ethics for short-term goals, the formation of transcendental motivation to get involved and act requires a transformation of the dominant paradigm of technological progress. In Laudato Si, Pope Francis wrote that the technocratic paradigm dominates economic and political life. It holds control over external objects (LS, 106, 109). In line with Francis' views, Levy Checketts found that the bourgeois paradigm in AI disruption has become mainstream in today's daily human life (Checketts, 2022). There is no guarantee that this paradigm will not slip into the paradigm of the Catholic Church. Therefore, we must consider transcendental motivation's emergence in the Church.

The Catholic Church needs to actualize the grace that God has endowed upon it. Saint Augustine of Hippo developed the concept of imago Dei, stating that humans naturally desire to seek God (Augustine, Conf. 1.1.1.). Humans can relate to God because there is a desire to unite with God. However, humans need to actively actualize their will to adapt to God's will with the help of God's grace. Classical methods condition the Catholic Church to align itself with God's will. These classical methods are lectio divina, receiving the Sacraments, and spiritual practice. Augustine's experience shows that he was moved to seek God because of the grace of faith and divine inspiration given to him through the humanity of Jesus Christ and His preachers (Augustine, Conf. 1.1.1.). From Augustine, the Catholic Church confirmed that God's grace in faith and divine inspiration play a role in moving the will to conduct God's will.

In the context of AI, the Catholic Church needs God's grace for humanity to break out of its exploitative-exclusive paradigm. This means that the proclamation of the Church amid AI disruption is to revive the experience of God's grace to get out of the exploitative-exclusive orientation. The Catholic Church can benefit marginalized communities when grace operates within it. The power of God's grace can spark transcendental motivation in the Catholic Church. It can protect

their dignity from the adverse effects of the exploitative-exclusive paradigm in AI. God's power of grace conditions the transformation from the exploitative-exclusive paradigm to the paradigm of personal benefit for the dignity of marginalized people. This aligns with what Jesus Christ said: ...whatever you did not do for one of the least of these, you did not do for me (cf. Mt 25:45).

Psychological Transformation

The emergence of transcendental motivation coincides with psychological transformation. The transformation of internal psychological connection supports the realization of social attitudes. This change also changes the way of thinking and feeling towards AI utilization, i.e., the transformation process from the exploitation-exclusion paradigm to the orientation of existential benefits to support the dignity of marginalized communities.

The reality of psychology is not merely that emotions are divorced from thinking. Paul Ekman, Amedeo Canclini, and Alessandro Manenti expressed similar emotional views (Cencini & Manenti, 1992; Ekman, 2003). Emotion is a complex, automatic, and simultaneous process of cognitive appraisal and emotional and physical reactions in the body in response to an event. The interconnectedness of cognition, emotion, and its effect on physicality is the internal psychological connection that determines social attitudes.

The reciprocal relationship between cognition, emotion, and physicality is the dynamics of internal psychological connection. The exploitation-exclusive orientation in AI technology can sneak into the belief system of its users, including the Catholic Church. Transforming it means changing the belief system. The transformation process involves a shift from a paradigm of exploitation-exclusive orientation to an orientation of existential benefits to support the dignity of marginalized communities only in a constructive collaboration of belief systems and God's will.

Jack Mezirow defines transformative learning as changing frames of reference (FoRs). FoRs are the cultural and linguistic structures through which meaning is interpreted in life experiences. Problematic FoRs can be a mindset, a habit of thought, or a perspective of meaning. FoRs produce sets of prejudices and expectations. FoR becomes a force that tends to reject ideas that do not fit with it. The transformation process makes FoRs more open, reflective, and emotionally transformed. According to him, positive direct experience can transform FoRs while doing self-reflection and direct action (Mezirow, 2018). The transformation

process requires the willingness of the agent. So, the transformation process is a process of changing the wrong belief system. It also changes the internal psychological connection to be open to transcendental motivation.

The dispensation of God's grace through the Sacraments, the reading of Scripture, and spiritual exercises condition nature to receive divine inspiration. Divine inspiration triggers transcendental motivations aligned with Christ's teachings as God's grace. Divine inspiration is necessary for transforming the belief system. This system has formed the internal psychological connection, i.e., the reciprocal relationship between all habits produced by the intellect (prejudices) and existing emotions. Divine inspiration as an actual grace helps emotions to favor divine inspiration, even though it is contrary to habit. A decision has a basis consisting of several attractions, according to Amedeo Cencini and Alessandro Manenti. Man will seek what he likes rather than what is beneficial because the tendency to want something is dictated by emotion.

Nonetheless, they say that humans can escape emotional attraction. Human emotional issues can be resolved through their rationality. This does not mean negating the affective, but rather elevating it to a higher level (Cencini & Manenti, 1992). Grace elevates reason and emotion to a higher level. Actual grace provides the power that helps the emotions and intellect favor divine inspiration.

Thus, transforming the belief system can transform the social attitude of the Church through the internal psychological connection. This transformation conditions the social attitude of the Church to be more comprehensive. This means that the psychosocial transformation process of the Catholic Church not only prevents the immediate impact (proximate ends) of AI but preserves the future dignity of marginalized communities (ultimate ends). In this sense, the transformation from an exploitative-exclusive orientation to an orientation of personal benefits for the dignity of marginalized communities is a revitalization of God's grace.

Revitalization of Grace as an Effort to Mitigate the Catholic Church against the Negative Impact of AI Disruption

The revitalization theology of grace targets marginalized communities amid AI disruption. AI disruption and development have entered the early phase of forming the human belief system. The Catholic Church has been wary of its benefits and impacts on humanity. This is evident in the Rome Call for AI Ethics

document issuance. However, the Catholic Church's mitigation of the impact of AI disruption on marginalized communities must be its concrete testimony and proclamation. This is a sacred calling in line with the words of the Lord Jesus (cf. Mt 25:45).

The Catholic Church only responds as an agent to the benefits and impact of AI for marginalized communities when it prioritizes God's grace. Indeed, the revitalization of grace has always been the Church's priority. Through transcendental collaboration, individuals must actualize God's grace in action. The transcendental collaboration is the identification of divine inspiration. The Church receives God's grace by practicing living piety. This includes receiving the Sacraments, practicing lectio divina, and doing spiritual exercises. Reflection of the Church's concern for marginalized communities can spark divine inspiration.

Divine inspiration plays a role in awakening the will of the Church to do the words of the Lord Jesus Christ. The Catholic Church's motivation to act and engage according to the words of the Lord Jesus Christ is sparked by actual grace, raising the internal psychological connections to a transcendental level. This causes the attraction to the teachings of Christ to be stronger than the attraction to the technocratic and bourgeois belief systems.

Conclusion

AI disruption affects the human belief system. The Catholic Church, as the Grund sacrament, is called to bring the grace of salvation to humanity, especially marginalized communities. The transcendental collaboration moves the Catholic Church to act as a form of solidarity with marginalized communities. Through the transcendental collaboration of the Catholic Church with God's grace, a transcendental motivation (willingness to get involved and act) will be triggered, accompanied by an internal psychological transformation.

Theologically, grace revitalization is a transcendental collaboration that causes a process of transformation of the belief system and the internal psychological connection. The transformation occurs from the exploitation-exclusive paradigm to the paradigm of existential benefits to support marginalized communities. This new paradigm is the formal cause whose actualization becomes the solidarity attitude of the Catholic Church. The Church can channel grace to the world through an attitude of solidarity towards marginalized communities through the proclamation of the revitalization of grace. The application of revitalization of

grace in the pastoral of the Catholic Church in the field of AI technology can be a starting point for further research.

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