

CHAPTER XIV

Designing Fair and Inclusive AI: Learning from the Social Teaching of the Catholic Church

Erly Lumban Gaol (dasantoerly@gmail.com)

STIPAS Tahasak Pabelum Palangkaraya-Central Kalimantan

Abstract

The Catholic Church has a long tradition of developing church social teachings. The social teachings of the Catholic Church emphasize the dignity of every human being, solidarity, subsidiarity, and social justice. In this era's technological development, the Catholic Church opened its arms to the progress of the times, including the development of Artificial Intelligence (AI). The presence of AI in the context of the Church's social teachings has triggered various responses from God's people. The significant development of AI affects various aspects of human life. However, concerns have arisen in various parties regarding the fairness and inclusiveness of AI, where technological developments strengthen social inequality and ignore the interests of vulnerable groups. The social teachings of the Catholic Church offer reference documents as a guide and essential notes as a basis for understanding the presence of AI. This article explores how the social teachings of the Catholic Church provide the theological and ethical foundations for designing fair and inclusive AI. They provided documents of the social teachings of the Catholic Church, including social encyclicals and other relevant documents. Concepts such as human dignity, social justice, participation and subsidiarity are the main discussions in this paper.

Keywords: Fair, Inclusive Artificial Intelligence (AI), Catholic Church Social Teachings, Theological Foundations, AI Implementation.

Introduction:

Artificial Intelligence (AI) is an interesting topic in this era. The latest research based on Scopus data shows hundreds of researchers expressing their ideas and finding the latest novelty about AI in the context of Catholic religious education and various other fields of science. This variety of novelty has become a reference and challenge in the world of education as well as in the religious teachings and social teachings of the Catholic Church; What is interesting is that AI has become a sophisticated tool and media that accelerates any search in this world, including becoming one of the leading forces in changing the world today.

Synergy of Catholic Ethics and AI in the Modern Technological Landscape
International Book Chapter - ISBN: 978-623-09-7875-3

Along with technological advances, concerns about the fairness and inclusiveness of AI in various fields of social and cultural communication have also emerged. On the other hand, AI can fairly treat all individuals, 'just how individuals use it' as a finding that makes the task easier. In different studies, the question arises as to whether AI has an impact that strengthens existing social inequalities or can empower everyone without exception.

Investigate the development of Artificial Intelligence (AI), and learning from the teachings of social church Catholicism, development increasingly technology _ fast open church see them as a medium, means, challenge and opportunity to evangelise people going to development church in matter AI is becoming a reporting medium (cf. Compendium Teachings Social Church, no. 66). Implementation of AI when collaborated with teachings social The Catholic Church invites people Catholic to wise use AI technology). Short article This invites people Catholic in a way for open to progress technology, also became guide short and practical for the wrestler's practitioner AI developers and users, researchers and stakeholders interest others, who use and make technology as means and tools proclamation in a way suitable and fair in promoting well-being together. This article is one _ reference guide for the Catholic Church against development technology in Artificial Intelligence (AI).

Also worth reviewing back, the Catholic Church has a history and tradition long in unifying development understanding and principles about teaching by emphasising the importance of respect for dignity from each individual in promoting justice and development of solidarity between all people (all society regularly general-in scope church catholic). Consolidating perception in understanding and applying principles-principles in design AI, we can create empowering technology, reduce social gap, and advance shared well-being (Compare: Commission The Papacy for Justice and Peace no. 189, 193).

We are discussing relevant Catholic church documents about the Church's social teachings and finding theological and ethical guidance in designing fair and inclusive AI. Arikel This explores several documents and gives A reflection on the role of the Church while studying concepts such as human dignity, social justice, participation, and subsidiarity and exploring how these concepts can be applied in the context of AI. To deepen and study various documents about the Church's social teachings, Designing fair and inclusive AI: learning from the Catholic Church's social teachings, we can learn from the Catholic Church's social teachings, rich in the values of justice, human dignity and solidarity.

Litre Review set:

The Role of the Church in the Technological Era: A Reflection To Document Church about Artificial Intelligence (AI).

From time to time, the Catholic Church has been a longtime receptacle for reflection and dialogue on the development of society, morality, and technology. The era of digital era is a fascinating moment here; the present share feature application technology that makes things easier activity. His presence, intelligence, artificial AI, and Church, in a way totality, attends, responds to, and creates a guide/compiles documents and affirmations/explains to guide his people in facing a new era. Document the Church that discusses AI and its impact, giving demands and reflections On the role of the Church face-to-face with the technological era. This.

Catholic Church, in the review of the document, implies necessary and essential moral and ethical values in using AI. As discussed in Commission Theology Between Nations in 2004, man expressed responsibility to technology and must be aware of himself as part of the image of God. AI as a robot should contribute positive and basic ideas for humanity, protect the Shared houses, and be a creation of God.

Reaffirmed, the Church is always one-sided and rooted in individual humanity (Council Vatican II), implied in Gaudium et Spes that progress taking place in this world should subserve to wholeness Man Alone.

Leader Pope Francis Catholic Church on February 26-28 gave a saying, The 'Good' Algorithm? Artificial Intelligence: Ethics, Law, Health, and advised that AI should exist. It makes it easier for people to serve and proclaim the Gospel to the whole world. AI is not To create inequality and condescension, man. Attitude Church, in relation to AI's presence, prioritises man's image and dignity. That Alone is God's creation. Pope Francis, in his remarks at the seminar Common Good in the Digital Age at the Vatican on 27/9, expressed the progress of AI technology in impacting meaningful functions in the growth and development of humans; AI is feasibly discussed. However, we must be reminded that development technology cannot be executed only Because the paradigm is mere, with rules out life, man.

The Role of the Church as written in Encyclical Centesimus Annus (1991), Pope Francis reminds you that your presence in technology and science knowledge

is award will personal people and relationships between structured creation and not-endanger for human and breaking ethics, not bring up disputes humans. AI robots do not arrange life together; robots do not own freedom and will. Church sees the presence of AI as making it easier to work and not tarnish humanity, especially violating human morals.

Catholic Church admits AI can own functions and benefits positively in various fields, emphasising notice points and values, ethics and respect for life man. Using technology with conscience and social responsibility with direction and purpose is a universal human condition. As believers, humans, as the image of God, must be ready for challenges; as believers in the word of Allah, the AI phenomenon helps man find the road to distinctive reporting-humanization.

Teachings Social The Catholic Church: Development AI Technology

The development of artificial intelligence (AI) has brought many benefits and new opportunities in various areas of human life. However, on the other hand, AI also raises concerns about fairness and inclusiveness. AI in social attitudes and its relationship with Christian and religious education can be a valuable inspiration in designing fair and inclusive AI. The social teachings of the Catholic Church emphasise the importance of human dignity, social justice and subsidiarity.

AI was also found in theology, AI in design and modelling in the world of education (Alhwaiti, 2023; Maphosa & Maphosa, 2023), communication, socio-culture (Algouzi et al., 2023), and their impacts (Vinichenko et al.). Artificial intelligence (AI) has recently become an increasingly important research topic. In the context of technological developments, the Catholic Church's perspective bears in mind that digital culture is unstoppably developing and even changing all the time. There is always something new: digital culture and its characteristics influence the Church. The Church cannot turn a blind eye to this phenomenon. What cannot be denied is the swift and decisive digital technology revolution, including AI (KWI Catechetical Commission, 2010). Concerns arise, questions about the fairness and inclusivity of AI;

How can we ensure that AI amplifies existing social inequalities and can treat all individuals fairly?

Answering this question, one exciting approach is to study the social teachings of the Catholic Church, which are rich in the values of justice, solidarity and human dignity in exploring human reality in today's world as well as to

understand relevant works, how social teachings The Catholic Church can provide a view and openness to current developments that can be compared to the presence of AI as a medium, a means of knowledge, search, designing AI that is fair and inclusive (Cf: Second Vatican Council pages 524-531). The following are several relevant Catholic Church documents discussing fair and inclusive AI in the context of Catholic Church teachings.

Table 1: Document names discussing Artificial Intelligence (AI)

Document name	Document description
<i>Rome Call AI Ethics (Rome Calls for AI Ethics)</i>	This document was issued by the Pontifical Academy for Life in 2020. This document highlights the importance of developing and implementing ethics in using AI, with particular emphasis on protecting human dignity and social justice.
<i>Laudato Si': On care for Our Common Home (Laudato Si' :Regarding attention to our homes)</i>	Laudato Si is an encyclical by Pope Francis published in 2015. In the general document, This discusses phenomena and issues of environment alive and profound the relationship with actual and relevant social justice in relationship with technology.
<i>Ethics in the Internet (Ethics in the Internet)</i>	In 2002, a document issued by the Pontifical Council. Focus document: This is earmarked For justice and peace. Although, in a way, it is not A direct discussion of AI technology, it highlights necessary ethics and its use in the era of digital technology and the internet. To ensure development, respect and social justice for every man.
<i>Artificial Intelligence: Ethics, Regulation, and the Quest for Autonomy</i>	Content of document This discusses ethics and related regulations _ with AI technology, with various considerations and social implications, sound economics, and humanity from technology
<i>The Global Landscape of AI Ethics Guidelines (Global et al. ethics</i>	The Global Landscape of AI Ethics Guidelines is an article with an explanation and analysis of AI guidelines and ethics from the Catholic church's view. This article was written by Antonetta M. Grasso,

guidelines)	Michael A.P. Clements, and John P. Gallagher (Harvard et al.).
--------------------	---

The document above implies that the Church's attention and role are critical in the growth and development of technology. The Catholic Church is present for AI phenomena and the challenges in life. From the perspective of the Catholic Church, the presence of AI is mandatory and can be seen as an impactful builder-positive for the Church. Document the not only as an opinion piece that is read, but How people capable unveil AI as tools that can used help need man. With AI's presentation as an exciting feature, the Catholic Church must consider his humanity, ethics, morals, and dignity.

In addition, documents and encyclicals are presented as means of collaboration to build the world. It is intended for all, however, in a way Specific to sustainable collaboration with technology experts. With the realisation that AI technology is used for progress. No damage to nature, especially to image humans (McQueen, 2022: Briola, 2023).

Documents and encyclicals the attention central Church to :

Dignity human: Teachings of the Catholic Church always emphasize that man's true honour and dignity are inherent and cannot be replaced by anyone. Exclamation Catholic Church, AI should be directed and owned function for protecting the dignity of man. AI-enabled the protection, building, and promotion of man's dignity. Alone with priority is quality of life, strengthening diversity, and prioritising the right man. So, implementing AI is the main thing Not To manipulate, discriminate, and exploit man.

Justice: Emphasizing values of justice becomes important in Catholic church teachings. In context, AI (logarithm) technology does not simply give preference or discrimination; it is not fair to man in a general public context in a broad way. When analysing effects, bias and evaluation, fairness in the AI context must be held in an orderly/structure to identify and reduce bias to values that do not support life humans (deep social inequality access and use of technology).

Inclusion and solidarity: There is an urgent emphasis on teaching social values. The Catholic Church respects and pays attention to the well-being of everyone, especially vulnerable humans in inadequate situations/marginalised. Inclusion value in AI means looking and making sure there are fair connections and access -in using technology equally for all individuals, without must-see conditions and background, diversity, or economic and social culture. The presence

of AI technology is not for complicated things but as a road to overcoming the digital divide – using friendly, humanising AI humans, teaching its values and functions with attention to the needs of humans and deep matter. This identifies AI technology as a means of equality needed with still-notice policies such as exclamation documents and encyclicals about AI.

Responsibility and Ethics: Responsibility and ethics are essential in the use and development of AI technology. Implementing AI must ensure consideration of principles of fundamental ethics, morals, and social responsibilities, such as justice, truth and mercy. This social responsibility and its implications also become considerations, even private, without complicating things with the freedom of individuals in the use and development of AI technology.

Collaboration and Dialogue: Points Fifth This is how the Catholic Church interprets dialogue and collaboration, emphasising collaboration between stakeholders, holders, interests, practitioners, affected communities- the impact of AI, and experts or experts in making decisions using AI. Perspective This also emphasises the usefulness of AI fairness, value inclusiveness in a sustainable way, and the needed application of AI in community life/ matter. This person is the Catholic church.

Discussion:

Teachings social The Catholic Church ' supports and opens self ' on the progress of the times with notice points and values that support and lead to dignity man. His presence in AI technology is not seen as a complicated means -of life, man, but as an opportunity and challenge, and also shows progress in man in use, facilitating his life. Dignity has become increasingly significant in the use of AI. AI must rooted in the protection of privacy and people. The algorithm supports AI, but most importantly, the human is the driving motor in use and achievement in the AI system program.

Use of AI as artificial intelligence, necessary clarification: AI does not behave; humans own its behaviour in using it. AI behaviour is different from man's. Qualitative Research has proven that AI was created by humans and not by humans. In terms of this, human transcendental values, quality, and capability differentiate in a way fair, moral, and possessive miscellaneous competence. AI systems cannot move and develop. If man does not use it, in context, this is AI with no own mark. If man does not use it, then it needs distinction, even human habitus, and how far AI can go works in his life.

Teachings Catholic Church-fair and inclusive must be considered, promoting valuable justice-solidarity. AI and its database serve values that side with the needs and interests of man. It also needs to be emphasised that collaboration-related creation, development, and use of AI do not violate rules and policies in technology, let alone morals and justice. Ensuring excellent and correct access is essential to the effectiveness of AI in various components.

As explained in AI principle documents and encyclicals above, the Catholic Church must ensure the application and development of AI, which must contribute to goodness together, good and correct use, moral and permanent responsibility, and notice the image of self and dignity of man. AI technology is ' present '. For complicated things, activity man as God's creation helps lighten up and speed up activity man That Alone. See development increasingly technology-rapidly, AI as applications and features provide diverse information available _ and used by humans in various matters. This AI also helps man to be more creative in finding meaning in his activities. However, it is necessary to emphasize that in obtaining information through AI, it is necessary to verify data- process it in a good and right way – not annexed and copy-paste like that.

Context the social teachings of the Church, necessary and important notice aspect dignity humans, social justice, ethics, even the most important thing is human morals as God's most sublime and glorious creation. AI is not seen as a burden that crushes the ages; humans must follow it, but in order to reflect to what extent AI is beneficial for the journey of man to mature. The various points necessary above refer to documents and encyclicals of the Catholic Church, emphasizing that the social teachings of the Church need see points following:

The dignity of man as the image of God is sublime and not replaced by AI. No for replacing role main humans, however, as a means of support that makes things easier for man. In the development and application of AI, it must be used to increase the quality of human life Without complications while still paying attention to correct principles, ethics, and morals. The presence of AI promotes values, justice, and social teachings of the Catholic Church- towards well-being together.

Social justice in The Catholic Church refers to the Church's social teachings. In terms of this, emphasize the need to repair the recurring gap. His application-based presence must make access more accessible for men without exception. Bias analysis of the presence of AI must be attention to prevent values

that are not by the teachings of the catholic-prevent deliberate injustice-nor Not on purpose.

Inclusion and Solidarity As has been explained above, value inclusion and solidarity must still notice the well-being of everyone, especially Lots marginalized and marginalized brothers - AI as a means of communication must be capable of examining reach needs 'through AI as a tool and human means as God's creation, must be thinking and contribute reach AI can help for answer it. The gap that occurs late in a 'settled' situation – AI can reach it as information available- help for actualised. Of course, with notice code ethics and policies by Catholic church teachings. AI should be designed in a way that is easy and friendly.

Ethics and responsibility: Ethics and responsibility are essential points emphasized When humans use AI technology. Implementation and development must be accountable to justice, ethics and morals. Grounding principle of ethics No violates' human ethics foundations and moral values in the Catholic Church. The perception is that AI technology is presented as Power support in sharing interests and activities and even as a means to build responsibility for anybody.

Collaboration and Dialogue: The Catholic Church of time all the time. In the context of AI, the Catholic Church emphasizes collaboration and dialogue within AI's creation, use, and development. This Catholic Church 'as moral practitioners' invites experts, practitioners, communities, AI users, and institutions to be involved in AI decision-making and policy. The path of dialogue and collaboration become important in AI fairness and ethics decision-making. What should result from dialogue about AI? _ still siding with the dignity of man as God's most sublime creation.

Discuss the theme article. This is necessary to reflect on the document Laudato Si: On Care Our Common Home Vatican Press (Pope Francis, 2015), discussing the development and maintenance of the environment natural God's creation became a responsibility together Good in a way communal. In the docs, this, though in a way Not directly discuss AI, served several mark moral and ethical bases that can be applied in characteristic uses and contexts of AI inclusive and fair.

The Pontifical Academy enriches the contents of the Laudato Si document for Life document. The Vatican promotes ethics and development use of AI through the red form guidelines and principles that can be used in fair and inclusive implementation of AI in the context of Church social teaching. As an opinion, Mittelstadt, B. D., Allow, P., Taddeo, M., Wachter, S., & Floridi, L. (2016)

discuss ethics in the algorithmic and ethical use of AI technology. Not only that, it also pointed out how to Solve ethical/issues in fair and inclusive AI development in the context of Social Catholic church teachings.

Council Vatican II in Gaudium Et Spes: Pastoral Constitution on the Church in the Modern World also discusses The role of the Catholic Church in growth and role in a touching modern world to issues social humans, incl inside it social ethics and its relevance in the world. Touch Church must have a positive impact on AI users. Dignity, humanity, social justice, solidarity and social responsibility must become a framework comprehensive work _ in understanding code ethical/ethical technology.

Justice and Ethics

Study leading to discuss the role of deep AI technology connection with justice is necessary to draft characteristic transparency-educational, deep context the social teachings of the Catholic Church are understood as ' educational means and content', characterised accountability, to ensure that AI technology delivers impact positive for user ' people of God' as facilities and reporting. The focus is earmarked for everyone without _ a block or background behind a particular. Fairness AI bridges the open use of AI for anybody. With an emphasis on ethics, it become a priority for AI users to direct the social teaching of the Catholic Church to protect the dignity of man.

Deep AI perspective Theological Catholic church

Characteristic: The Church's central social teachings prioritise man's dignity. In series theology and relationships mark social focuses on the Imago Dei (Image of God). Correlation: This shows more intrinsic values from man Than Alone. AI as means, and people as users. It also shows every man's values and freedom in using AI: ' stick to the corridor, and the values accordingly teachings church Catholic'. Base theological This reminds us to use technology to serve, preach, and do social action with objective, general kind.

Perspective theology also creates creation and stewardship, meaning Catholic teachings admit that God is the creator of everything. In the AI concept, by God, humans are given roles essential for creating, developing, use AI. As managers of the leading world and natural universe, humans must participate and be responsible for nurse world development and its contents. This AI technology is

used in context awareness and responsibility in a way personal and inner world social ecosystem, collectively Specific in the context of the Catholic church.

Deep AI The Catholic Church should emphasise the principle of subsidiarity and solidarity; their importance in social justice is part of sharing. Social justice emphasises togetherness, not individuality. AI as challenges are also opportunities shar. Opportunity to develop creativity Good in a way personal nor together. His presence in AI technology is evocative of man for learning, to say the least, adapting self, for wanting to progress or not staying in the old stereotype of me—no can technology. However, the presence of AII precisely must seen as an advancing medium man in scope whatever, in fact, particular social sphere.

Also found are values that, when designing inclusive AI, must emphasise love and mercy. This basis leads to the social teachings of the Church. Deep love in the AI context does not again emphasise only I can- in AI technology; however, we can use it as a medium of conduct, action, and mercy for fellows. Developing mark theology in relationship with AI means more AI technology used as a reporting medium to value goodness and society, with its main focus being right essential humans and everything the consequences (according to code ethical/AI ethics).

Refer to opinion from (Verstraeten, J. (Ed) (2008), and Keenan, J.F. (Ed) (2016), ethics Catholic theology and social issues of AI and big data. Give perspective on ethical requirements in pouring church social teachings. From the side base, AI theology is explained in the following table;

Table 2: Foundation and explanation of AI from the Perspective theology

Theological foundations of AI	AI's theological content and explanation
Vatican's Pontifical Academy for Life: Rome Call for AI Ethics, Vatican Press	Content of document This contains principles and ethics that apply in the development and use of AI. Document This was published by the Academy Pontifical for Life Living and based in the Vatican.
Vatican's Dicastery for Promoting Integral Human Development. (2018). Oeconomicae et Pecuniariae Quaestiones: Considerations for an Ethical Discernment	Fill out the document. This concerns ethical considerations related to economic conditions, systems, and finances. Relevance of theological AI, providing an understanding of AI's social, ethical, and technological implications. Although No is,

Theological foundations of AI	AI's theological content and explanation
Regarding Some Aspects of the Present Economic-Financial System. Vatican Press.	in a way, directly talking about AI, AI implementation and its relevance look mentioned as ethics in AI development. As noted, 'document This as a comparison in context theology and AI, and not as document main in discussion Theology and AI'.
Dokumen Laudato Si	Pope Francis wrote an encyclical with the principal about the language issues of environmental life. Although No, in a way, directly discusses the AI concept in the document, it explains what is based on ethics and theological values For understanding draft responsibility in maintaining and caring for God's creation (concept ecological).
Buku the Cambridge Handbook of Artificial Intelligence: terbitan Cambridge University Press (Floridi, L. (2020)	Book contents This serves several characteristic multidisciplinary views about AI. The contents cover aspects of ethics and social values. Book This can help readers understand the implementation of the principles and social teachings of the Catholic Church in relationship with AI.
Scherz, P., & Selinger, E. (Eds.). (2018). Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence. Oxford University Press.	Book contents This speaks about aspects of ethics in the AI context. The contents characteristic insights about the ethics towards AI, as well as How to implement it in principles of the Church's social teachings in the development and use of AI.

Conclusion:

Discusses artificial intelligence (AI) in context, titled Designing fair and inclusive AI: Learning from social teachings of the Catholic Church as well based on literature research, documents, and encyclicals. The Catholic Church explains and concludes that there exists a strong relationship _ between designing AI that is fair and Inclusive when linked with the social teachings of the Catholic Church. Results of literature, research, documents and encyclicals identify that there are essential values _ Man is God's leading and first creation, given by the creator the right to manage the world wisely, excellently and suitable for his life.

Also explained is designing AI and which and inclusive: learning from the church's social teachings, namely with put forward sided values-to man That Alone. In terms of this, humans, as Major users of AI technology, should notice the dignity of man Alone. AI exists as a means to support activities and activities man in various actions and activities. AI must have social, constructive characteristics of togetherness with mark justice characteristics inclusive and not exclusive.

Understand the contribution of social teachings of the Catholic Church. Context AI development, calling necessity ethics and codes ethics AI technology. Understanding the presence of AI brings and calls social, moral and ethical teachings in the Catholic Church. AI brings justice. It is not split in scope wide. Related to AI, meaning the creation of social relations in all circles.

Designing profound AI principles, the social teachings of the Catholic Church are meaningful care for and develop God's creation, underlining its importance of dignity, man's Good in a way of law, and ethics. AI technology does not cause disputes or social injustice, making Canyon separator; it gives access to Everyone and contributes to social progress.

Additionally, solidarity is also an essential principle in designing inclusive AI. AI should strengthen social relationships and cooperation between individuals and communities. This involves building strong social networks, encouraging collaboration, and promoting universal human values. The solidarity of the Catholic Church can guide us in building AI that focuses on strengthening social relationships and promoting the common good. Furthermore designing fair and inclusive AI also involves respecting the law and ethics. The development and use of AI must comply with applicable legal principles and consider the ethical implications of the technology, including protecting individual privacy and freedom, preventing discrimination, and ensuring fairness in decisions made by AI.

Finally, designing fair and inclusive AI requires attention to the environment and the natural world. Keeping in mind the principle of caring for

God's love, the development and use of AI must consider its impact on the environment, reduce the carbon footprint, and promote sustainability.

By understanding and applying the principles of the Catholic Church's social teaching, we can design more just, inclusive, and responsible AI. In doing so, we can ensure that AI technology enhances human dignity, strengthens social justice, promotes solidarity, respects ethical laws, and cares for God's creation.

Bibliography

- Algouzi, S., Abbas, A., & Alzubi, F. (2023). *A Study of AI-Mediated Communication and Socio-Cultural Language-Related Variables : Gmail Reply Suggestion Variables Related to Language Socio-Cultural : Gmail reply*. <https://doi.org/10.1080/08839514.2023>
- Algouzi, S., & Alzubi, A.F. (2023). The Study of AI-Mediated Communication and Socio-Cultural Language-Related Variables: Gmail Reply Suggestions. *Applied Artificial Intelligence*, 37 (1). <https://doi.org/10.1080/08839514.2023.2175114>
- Alhwaiti, M. (2023). Acceptance of Artificial Intelligence Application in the Post-Covid Era and Its Impact on Faculty Members' Occupational Well-being and Teaching Self Efficacy: A Path Analysis Using the UTAUT 2 Model. *Applied Artificial Intelligence*, 37 (1). <https://doi.org/10.1080/08839514.2023.2175110>
- Briola, L. (2023). *Eucharistic Revival*.
- Artificial, K. (2023). *A Postmodern Future (Singularity) with Algorithmic Post-Human Godheads: Trans-Humanism, Artificial Intelligence, and Dataism*.
- Green, B. P., Met, P., Bishop, D., Tighe, P., & Papal, S. D. (2022). *The Vatican and Artificial Intelligence : Interview with Bishop Paul Tighe. 11*, 212–214.
- Labreque, C. A. (2022). *Caring or Subduing? Technology, Artificial Intelligence, and the Catholic Ecotheological Tradition*.
- Lucas, H., & Swanson, D. P. (2023). *Negative Capabilities: Investigating Apophasis in AI Text-to-Image Models*.
- Maphosa, V., & Maphosa, M. (2023). Artificial intelligence in higher education: a bibliometric analysis and topic modelling approach. *Applied Artificial Intelligence*, 37 (1). <https://doi.org/10.1080/08839514.2023.2261730>
- Mcqueen, M. (2022). *Triggering Religious Conversions via AI?*
- New, U., Abu, Y., Dhabbi, A., Language, D., Uni, I., Arabic, E., Medium, S., Nguyen, B., Thanh, C., & Nong, D. (2024). *Preliminary Research on Social Attitudes towards AI Engagement in Christian Education in Vietnam: Promoting AI Technology for Religious Education*.
- Reed, R. (2021). AI in Religion, AI for Religion, AI and Religion: Toward a Theory of Religious Studies and Artificial Intelligence. *Philosophy and*

Religion.

- Scherz, P. (2021). *The Challenge of Technology to Moral Theology*. 10 (2), 2016–2018.
- Vinichenko, M. V, Chulanova, O. L., & Vinogradova, M. V. (2020). *The impact of artificial intelligence on*. 16 (3), 67–77.
- Wkdq, I., Hohfwulflw, I., Wkh, RU, Jxlgdqfh, K., Wkh, WR, Ri, S., & V, RUI (2022). (*slorjxh rq \$, dqg Orudo 7khrorj\ :hdylqj 7kuhdgv dqg (qwdqjolqj 7khp)xuwxhu 1 . 11* (1), 232–234.
- Pope Francis. (2015). *Laudato Si: On Care for Our Common Home*. Vatican Press.
- Pontifical Academy for Life. (2019). *Rome Call for AI Ethics*. Vatican Press.
- Floridi, L. (2020). *Artificial Intelligence, Ethics and the Future of Work*. Cambridge University Press.
- (Cf: Pontifical Commission for Justice and Peace).
- Barfield, W., & Pagallo, U. (Eds.). (2019). *Research Handbook on the Law of Artificial Intelligence*. Edward Elgar Publishing.
- Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 2053951716679679.
- Pontifical Academy for Life. (2019). *Rome Call for AI Ethics*. Vatican Press.
- Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9), 389-399.
- Floridi, L. (2020). The AI did it: Reflecting on accountability and liability. *Minds and Machines*, 30(4), 585–600.
- Barfield, W., & Pagallo, U. (Eds.). (2019). *Research Handbook on the Law of Artificial Intelligence*. Edward Elgar Publishing.s
- Vatican's Dicastery for Promoting Integral Human Development. (2018). *Oeconomicae et Pecuniariae Quaestiones: Considerations for an Ethical Discernment Regarding Some Aspects of the Present Economic-Financial System*. Vatican Press.
- Scherz, P., & Selinger, E. (Eds.). (2018). *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*. Oxford University Press.
- Stoecker, R. (2020). *Ethics of AI and Big Data: Challenges, Principles, and Solutions*. Springer.
- Verstraeten, J. (Ed.). (2018). *The Ethics of Technology: Methods and Approaches*. Springer.
- Keenan, J. F. (Ed.). (2016). *Catholic Theological Ethics, Past, Present, and Future: The Trento Conference*. Orbis Books.
- <https://www.katolikku.com/kata-mereka/16111140650/peran-gereja-dalam-era-teknologi-refleksi-terhadap-dokumen-gereja-tentang-kecerdasan-buatan>
- KWI Catechetical Commission, *Living in the Digital Era*. Kanisius Yogyakarta: 2010.

Author's Profile



Erly Lumban Gaol (dasantoerly@gmail.com), born in Medan. I completed my third-degree studies at the State University of Malang in 2023, and I am now working as a lecturer at STIPAS Tahasak Pabelum Palangkaraya-Central Kalimantan