CHAPTER VI

Catholic Mission and AI: Spanning the Boundaries of Social Service in the Digital Age

Pham Quang Dang (dangphamcse@gmail.com)
Agustinus Bayu Suseno (arscse@gmail.com)

STIKAS St. Yohanes Salib – West Kalimantan

Abstract

In the digital age, Catholic mission work has expanded to encompass Artificial Intelligence in various social service initiatives. This merging of traditional religious outreach with cutting-edge technology exemplifies the adaptability and relevance of the Catholic Church in addressing modern societal needs. By leveraging AI, Catholic organizations can enhance their efficiency in delivering social services, from humanitarian aid to healthcare and education. This paper explores the potential of AI to transform Catholic mission work, highlighting both the opportunities and challenges that arise in this increasingly digitized landscape.

Keywords: Catholic mission, Artificial Intelligence, digital age, social service, ethics, impact

Introduction

The Catholic Church has a long-standing tradition of providing social services and humanitarian aid to needy people. As Artificial Intelligence (AI) technology advances, there is growing potential to apply these innovations to improve and expand the Church's missionary work (Smith et al., 2021). However, integrating AI also raises important ethical considerations related to the Church's teachings on human dignity, solidarity, and compassion (Shin et al., 2018).

Previous studies have highlighted the transformative capacity of AI to optimize humanitarian logistics, provide personalized care, and strengthen advocacy efforts ((Pizzi et al., 2020); Mathiyazhagan, 2022). However, there are also risks around exacerbating inequalities, threatening privacy rights, and undermining human judgment (Floridi & Chiriatti, 2020). As Catholic institutions

navigate these opportunities and challenges, evidence-based insights are needed to inform policy-making aligned with ethical principles (Green, 2022).

Thus, this research examines the relationship between Catholic social service delivery and AI technology. It aims to guide responsible innovation that respects human rights, justice, and care by identifying significant ethical conflicts and developing suggestions. The talk also aims to further the more prominent topic of using emerging technology for social good in spiritual contexts.

The ultimate goal is to promote positive communication and cooperation between IT executives and religious institutions. Maintaining moral pillars in the face of fast change is essential as AI becomes increasingly integrated into providing services (Smith, 2021). Technology advancement can be directed toward empowerment, healing, and social transformation by Catholic social teaching because of its theological solid basis and emphasis on human dignity.

Literature Review

Historical Perspectives on the Catholic Mission

Over centuries, the idea of Catholic mission has changed to include the advancement of human dignity, social justice, and evangelism. To understand how AI technology can be used to advance the mission of the Church in modern society, it is necessary to look at historical viewpoints on the Catholic mission. This investigation should cover the essential function of human agency and the all-encompassing strategy for meeting the material, social, and spiritual requirements of people and communities (B. P. Green, 2022).

As the Catholic Church tries to integrate AI technology in pastoral and theological contexts, it is imperative that we critically analyze the idea of the Catholic mission in this evolving environment. When AI and spirituality come together, opportunities and challenges present themselves. A deep understanding of the Catholic mission is necessary to steer the ethically and socially responsible deployment of AI by the faith.

While AI can be a valuable tool for delivering information and spiritual guidance, it is crucial to maintain the importance of pastoral care and human connection within the context of the Catholic mission. The use of AI in pastoral ministry should enhance the ability of pastors and communities to support people on their spiritual paths, not lessen the significance of one-on-one interactions, empathetic listening, and the community aspect of faith (Pope Francis, 2019).

The Ethical Imperative of Discernment

The ethical duty of discernment continues to be crucial when understanding the consequences of AI technology within the context of the Catholic mission. The Catholic community must reflect and discern to ensure that AI integration is consistent with the moral teachings, ethical principles, and spiritual goals unique to the Catholic vocation. To foster a comprehensive grasp of the consequences of AI within the context of the Catholic mission, this discernment process should involve active interaction with theologians, ethicists, pastoral leaders, and technological professionals (Robinson, 2006).

In conclusion, the Catholic mission provides a framework for the moral and intentional incorporation of AI technology into religious and spiritual practices within the Catholic community. Through an extensive examination of the literature that looks at the ethical, theological, and historical aspects of the Catholic mission regarding AI, the Church can successfully negotiate this intersection while being true to its purpose in the contemporary world.

When incorporating AI into social services, care must be taken to uphold the values of Catholic social teaching, which prioritize promoting the common good, human dignity, solidarity, and giving the weak and impoverished priority. This indicates that the development of social justice, fair distribution of resources, and empowerment of the oppressed must be the main goals of AI applications. The moral integration of AI into social services should bolster the Church's capacity to fight systemic injustice and advance the rights and dignity of all people, especially the underprivileged (Cowls et al., 2019).

Role of the Catholic Church in Social Services

The Catholic Church has long provided social assistance and satisfied the needs of vulnerable and marginalized populations. This commitment to upholding human dignity and the common good reflects the foundational principles of Catholic social teaching. Regarding artificial intelligence (AI), the Church's social service endeavors align with the ethical and compassionate utilization of AI technology to advance its objective of assisting the most marginalized segments of society.

AI can be used to promote human empowerment and development within the context of Catholic social services. The Church may more effectively identify and address the needs of the most vulnerable people, customize interventions to

target particular issues and advance sustainable development through AI-driven projects. The notion of subsidiarity ought to direct this technological progress, guaranteeing that artificial intelligence (AI) enriches and augments human agency instead of supplanting it. The Catholic Church can efficiently fulfill the changing needs of communities and individuals by optimizing its social services through AI for data-driven decision-making and resource allocation (Al-Abdulkarim et al., 2015).

As per the tenets of Catholic social teaching, incorporating AI in social services should foster a cooperative and inclusive society. AI programs should be designed to communicate across linguistic and cultural barriers to promote tolerance and support for individuals from diverse backgrounds. AI technologies can also be used to uphold the rights of marginalized groups, give voice to their viewpoints, and facilitate inclusive participation in the decision-making process. This tactic exemplifies the Church's commitment to promoting everyone's full and active participation in social and political life (Cowls et al., 2019).

Discussion

Ethical Considerations in AI Deployment for Social Services

Ethical considerations are crucial as the Catholic Church embraces AI in social assistance. According to Catholic social teaching, privacy, secrecy, and personal information protection must come first when deploying AI. In addition, the moral application of AI should respect the values of openness, responsibility, and prudent use of the Church's resources to carry out its social mission. This necessitates the incorporation of moral principles and frameworks that direct the conscientious creation, application, and assessment of AI technology in social services (Baric-Parker & Anderson, 2020).

In conclusion, the Catholic Church has a great chance to further its goals of upholding social justice, advancing human dignity, and serving the common good using AI technology in social services. The Church can use AI to expand its social services in a way that represents the compassionate and transformative mission of the Catholic Church by abiding by ethical considerations and the tenets of Catholic social teaching (E. E. Green, 2018).

In summary, AI offers a chance to advance the Church's goals of upholding human dignity, advancing the common good, and encouraging inclusivity (Floridi & Cowls, 2022). By exercising ethical judgment and adhering to Catholic social teachings, the Church may fully reap the rewards of AI innovation while

maintaining its unwavering commitment to social justice and compassion (Green, 2022).

Integrating Artificial Intelligence in Social Services

The Catholic Church has a revolutionary opportunity to improve and modernize social service delivery within the Catholic community by integrating artificial intelligence technologies. The Church can obtain more profound insights into the unique issues that people and communities face with the use of AI-driven analytics and data processing. This enables more effective resource allocation and focused interventions that offer individualized support to each person's unique needs (Mathiyazhagan, 2022). This is consistent with the Church's emphasis on appreciating each person's worth and dignity.

Additionally, by gathering and evaluating data on socioeconomic inequality, AI can support the advocacy and social justice initiatives of the Catholic Church. This will serve the Church's mission of advancing the common good by enabling it to effectively confront systemic inequities and advocate for legislative reforms that foster more significant equity and justice (Srivastava, 2004). AI-enabled services also facilitate greater accessibility and inclusivity (Floridi & Cowls, 2022), ensuring the Church's outreach is responsive to the unique needs of marginalized communities. This demonstrates a commitment to solidarity and full participation of all members of society.

To guarantee AI's moral and compassionate application, however, the Catholic Church must address moral concerns regarding algorithmic decision-making and data use and prioritize ethical issues (Chui et al., 2018). Transparency, accountability, and privacy protection remain crucial when deploying AI-powered services. When incorporating AI into social services, the Church must respect people's rights and dignity.

The Usage of AI in Social Job

Artificial Intelligence can significantly improve the social job that the Catholic community performs. AI technology can potentially enhance the social care initiatives offered by the Catholic community. One such strategy is to assist individuals in need by providing guidance and support using AI-powered chatbots. These chatbots can offer quick assistance, connect users to relevant resources, and promote a sense of belonging (Goldkind, 2021).

To assess large data sets and identify trends and patterns that will improve their comprehension of the needs of the communities, Catholic social workers can also employ AI. This data-driven approach could lead to more targeted and fruitful interventions, facilitating more efficient resource allocation and significantly influencing the less fortunate (Tomašev et al., 2020).

AI can also help in the development of individualized care plans for people, taking into consideration their particular requirements and situations. By taking a customized approach, the Catholic community can guarantee that the assistance provided is significant and fulfills every person's unique requirements. (Tran & Nguyen, 2021). The accuracy of requirement analysis and resource allocation can be increased using AI-powered analytics. Artificial Intelligence (AI) can provide valuable insights into resource allocation and intervention design by analyzing data from multiple sources, including demographics, socio-economic variables, and service consumption patterns.

As a result, social services in the community may be delivered more successfully and profitably (Bako et al., 2021). AI can also be utilized to better accurately identify individuals who may benefit from specific interventions or support services. By evaluating a vast amount of data, AI can help identify individuals who are more vulnerable or in need of additional care, enabling social workers to concentrate their efforts and resources where they are most needed (Asakura et al., 2020). There are numerous instances of Catholic social job organizations using AI in the actual world. One such instance is the employment of AI-powered chatbots to assist and guide those in need. These chatbots have helped people find helpful information quickly, assisted them, and fostered a feeling of community and belonging among Catholics (Cariceo et al., 2018).

Several examples of Catholic social service groups utilizing AI in the real world exist. One example is using chatbots with AI to help and direct those in need. These chatbots have aided individuals in finding pertinent information quickly, supported them, and encouraged a sense of belonging and community among Catholics (E. E. Green, 2018).

Ethics of AI in the Religious Context

Unique ethical issues must be explored when considering using AI within the context of the Catholic mission. Respecting human dignity and recognizing the value of protecting human rights are the two main goals of the Catholic Church. It is crucial to ensure that the application of artificial intelligence in social work does

not dehumanize or depersonalize individuals seeking assistance (Schneider et al., 2020).

Transparency and accountability are also necessary for the moral application of AI in social jobs within the Catholic mission. AI systems must be transparent, including the processes for generating decisions and any potential biases built into the system. Furthermore, Catholic organizations must ensure procedures are in place to deal with any moral dilemmas or adverse effects of using AI in social work. (Floridi et al., 2020). Another important ethical consideration is the protection of privacy and confidentiality. As AI systems handle and analyze vast volumes of data, people's privacy must be preserved, and personal information must not be compromised. This is especially crucial for Catholic missions since building relationships with people needing care requires high confidentiality and trust (Black et al., 2022).

Furthermore, the Catholic mission emphasizes solidarity, which necessitates a commitment to the common good and the well-being of society. It is essential to consider how AI technology may impact disadvantaged or vulnerable groups and ensure that installing AI systems does not exacerbate existing injustices or disparities in the community (Baric-Parker & Anderson, 2020). It is possible to introduce moral and altruistic ideas into the development and application of AI technology in Catholic society by incorporating religious ideals into these processes. Human dignity, solidarity, compassion, and justice are essential concepts in the social teachings of the Catholic Church. These principles can direct AI's moral advancement and application in social jobs (Cheong, 2021).

The Catholic mission emphasizes the inherent worth of every person and the necessity of giving a person's dignity and well-being priority. It is essential to use a human-centered approach when incorporating religious principles into AI technology. This entails ensuring AI systems are created with respect for human rights, dignity, and well-being (Rodriguez et al., 2019).

Extending Traditional Boundaries in Social Job

It is possible to introduce moral and altruistic ideas into the development and application of AI technology in Catholic society by incorporating religious ideals into these processes. Human dignity, solidarity, compassion, and justice are essential concepts in the social teachings of the Catholic Church. These principles can guide the ethical development and application of AI technology in social jobs (Cheong, 2021).

The Catholic mission emphasizes the inherent worth of every person and the necessity of giving persons' dignity and well-being priority. It is essential to use a human-centered approach when incorporating religious principles into AI technology. This entails ensuring AI systems are created with respect for human rights, dignity, and well-being (Rodriguez et al., 2019).

Conclusion

In the digital age, the marriage of artificial intelligence (AI) with a Catholic mission offers a singular chance to transcend conventional limits and assist those in need more effectively. Catholic organizations can improve social assistance services, expedite administrative procedures, and give clients more individualized care using AI technologies. Catholic missions should embrace artificial intelligence (AI) as a tool to advance their humanitarian work while respecting the virtues of compassion, solidarity, and dignity for all as the digital landscape develops. Catholic organizations may increase their influence and reach while helping to create a more compassionate and inclusive society by cautiously embracing AI.

Furthermore, artificial intelligence (AI) has been used to analyze a large amount of data to find trends and patterns that have improved Catholic social workers' comprehension of the needs of their communities. More focused and efficient interventions have been made possible by this data-driven strategy, which has also improved resource allocation and significantly improved the lives of needy individuals (Sinibaldi et al., 2020).

Reference

Al-Abdulkarim, L., Atkinson, K., & Bench-Capon, T. (2015). Factors, issues and values: Revisiting reasoning with cases. *Proceedings of the International Conference on Artificial Intelligence and Law*, *08-12-June*, 3–12. https://doi.org/10.1145/2746090.2746103

Asakura, K., Occhiuto, K., Todd, S., Leithead, C., & Clapperton, R. (2020). A Call to Action on Artificial Intelligence and Social Job Education: Lessons Learned from A Simulation Project Using Natural Language Processing. *Journal of Teaching in Social Job*, *40*(5), 501–518. https://doi.org/ 10.1080/ 08841233.2020.1813234

Bako, A. T., Taylor, H. L., Wiley, K., Zheng, J., Walter-McCabe, H., Kasthurirathne, S. N., & Vest, J. R. (2021). Using natural language

processing to classify social job interventions. In *American Journal of Managed Care* (Vol. 27, Issue 1, pp. E24–E31). https://doi.org/10.37765/AJMC.2021.88580

Baric-Parker, J., & Anderson, E. E. (2020). Patient Data-Sharing for AI: Ethical Challenges, Catholic Solutions. *Linacre Quarterly*, *87*(4), 471–481. https://doi.org/10.1177/0024363920922690

Black, E., Raghavan, M., & Barocas, S. (2022). Model Multiplicity: Opportunities, Concerns, and Solutions. *ACM International Conference Proceeding Series*, 850–863. https://doi.org/10.1145/3531146.3533149

Cariceo, O., Nair, M., & Lytton, J. (2018). Data science for social job practice. *Methodological Innovations*, *11*(3). https://doi.org/10.1177/ 20597991188143 92

Cheong, P. H. (2021). Bounded Religious Automation at Work: Communicating Human Authority in Artificial Intelligence Networks. *Journal of Communication Inquiry*, *45*(1), 5–23. https://doi.org/ 10.1177/ 01968599209 77133

Chui, M., Harrysson, M., Manyika, J., Roberts, R., Chung, R., Nel, P., & Heteran, A. (2018). Applying AI for social good | McKinsey. In *McKinsey Global Institute* . https://www.mckinsey.com/featured-insights/artificial-intelligence/ a pplying-artificial -intelligence-for-social-good

Cowls, J., King, T., Taddeo, M., & Floridi, L. (2019). Designing AI for Social Good: Seven Essential Factors. *SSRN Electronic Journal*, 1–26. https:// doi.org/10.2139/ssrn.3388669

Floridi, L., Cowls, J., King, T. C., & Taddeo, M. (2020). How to Design AI for Social Good: Seven Essential Factors. *Science and Engineering Ethics*, *26*(3), 1771–1796. https://doi.org/10.1007/s11948-020-00213-5

Goldkind, L. (2021). Social Job and Artificial Intelligence: Into the Matrix. In *Social job (United States)* (Vol. 66, Issue 4, pp. 372–374). https://doi.org/10.1093 /sw/swab028

Green, B. P. (2022). The Vatican and Artificial Intelligence: An Interview with Bishop Paul Tighe. *Journal of Moral Theology*, *11*(Special Issue 1), 212–231. https://doi.org/10.55476/001c.34131

Green, E. E. (2018). *Robots and AI: The Challenge to Interdisciplinary Theology* (p. 297). files/7885/Green - Robots and AI The Challenge to Interdisciplinary .pdf

Pizzi, M., Romanoff, M., & Engelhardt, T. (2020). AI for humanitarian action: Human rights and ethics. *International Review of the Red Cross*, *102*(913),

145–180. https://doi.org/10.1017/S1816383121000011

Pope Francis. (2019). *To the participants in the Seminar The Common Good in the Digital Age, organized by the Dicastery for Promoting Integral Human Development (DPIHD) and the Pontifical Council for Culture (PCC) (27 September 2019) | Francis*. https://www.vatican.va/ content/Francesco/en/ speeches/2019/september/documents/papa-francesco_20190927_eradigitale.html

Robinson, D. C. (2006). Engaging Technology in Theological Education: All That We Can't Leave Behind. By Mary I. Hess. Lanham, MD: Rowan & Littlefield, 2005. xi + 157 pages. $65.00 (paper $22.95). *Horizons*, *33*(01), 172–173. https://doi.org/10.1017/s0360966900003248

Rodriguez, M. Y., Depanfilis, D., & Lanier, P. (2019). Bridging the gap: Social job insights for ethical algorithmic decision-making in human services. *IBM Journal of Research and Development*, *63*(4–5). https://doi.org /10.1147/JRD.2019.2934047

Schneider, P., Walters, W. P., Plowright, A. T., Sieroka, N., Listgarten, J., Goodnow, R. A., Fisher, J., Jansen, J. M., Duca, J. S., Rush, T. S., Zentgraf, M., Hill, J. E., Kohler, M., Blaney, J., Funatsu, K., Luebkemann, C.,. (2020). Rethinking drug design in the artificial intelligence era. *Nature Reviews Drug Discovery*, *19*(5), 353–364. https://doi.org/ 10.1038/s41573-019-0050-3

Shin, J., Park, Y., & Lee, D. (2018). Who will be smart home users? An analysis of adoption and diffusion of smart homes. *Technological Forecasting and Social Change*. https://www.sciencedirect.com/science/article/pii/S0040162518300696

Sinibaldi, E., Gastmans, C., Yáñez, M., Lerner, R. M., Kovács, L., Casalone, C., Pegoraro, R., & Paglia, V. (2020). Contributions from the Catholic Church to ethical reflections in the digital era. *Nature Machine Intelligence*, *2*(5), 242–244. https://doi.org/10.1038/s42256-020-0175-4

Smith, E. T., Lyons, A. J., Kriegel, L., Schumacher, S., & McDonell, M. G. (2021). Rising Strong: a housing-based intervention to prevent childhood out-of-home placements from families impacted by housing instability, opioid use, and other substance use disorders. *Social job in Mental Health*, *19*(6), 542–557. https://doi.org/10.1080/15332985.2021.1929664

Tomašev, N., Cornebise, J., Hutter, F., Mohamed, S., Picciariello, A., Connelly, B., Belgrave, D. C. M., Ezer, D., Haert, F. C. van der, Mugisha, F., Abila, G., Arai, H., Almiraat, H., Proskurnia, J., Snyder, K., Otake-Matsuura, M., Othman, M., Glasmachers, T., Wever, W. de, Clopath, C. (2020). AI for

social good: unlocking the opportunity for positive impact. *Nature Communications*, *11*(1). https://doi.org/10.1038/s41467-020-15871-z

Tran, K., & Nguyen, T. (2021). Preliminary research on the social attitudes toward the AI's involved Christian education in Vietnam: Promoting AI technology for religious education. *Religions*, *12*(3), 1–20. https://doi.org/10.3390/rel12030208

Author's Profile



PHAM QUANG DANG, S.Th. (Fr. Kamillus Maria, CSE), born in Long An, Vietnam, on October 15th, 1984, currently stays at CSE Convent of St. Albert in Bandol, Landak, West Kalimantan, email: dangphamcse@gmail.com/ Education: graduated with a bachelor of philosophy and theology program at the STIKAS St. Yohanes Salib in 2023. Work Experience: Company Staff. The current functional program is a student of theology master program



AGUSTINUS BAYU SUSENO, S.S., M.HUM., born in Pusat Kerohanian Karmel, Untang , Banyuke Hulu domiciled in Landak, West Kalimantan - Indonesia, email: arscse@gmail.com Education: graduated from the Bachelor of Theology Program at the STFT Widya Sasana Malang, in Graduated from the Master's Program at STFT Widya Sasana Malang, in Work experience: STIKAS Santo Yohanes Salib The current functional position is Asisten Ahli.