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Beyond the Black Box: Towards a Theology of the Artifact and the Phronetic Validation of AI-Mediated Liturgy in Madagascar

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Abstract: *This study investigates the ontological and methodological transition from Paul Tillich's classical correlation to a paradigm of Augmented Correlation within the liturgical context of the Fiangonan'i Jesoa Kristy eto Madagasikara (FJKM). Facing the dual pressures of temporal scarcity and the need for theological depth, this research proposes the "LiturgIA" framework – a hybrid architecture synchronizing the high-reasoning capabilities of the DeepSeek R1 model with specialized symbolic knowledge bases, including original biblical lexicons (HALOT, BDAG) and local hymnological corpora. The innovative core of this work lies in its "Five-Episteme Model," which orchestrates a disciplined dialogue between biblical theology, computer science, practical theology, sociology, and systematic theology. Empirical results demonstrate a transformative efficiency, yielding an 89% reduction in liturgical preparation time while simultaneously increasing the Theological Coherence Index (TCI). Unlike traditional "black-box" systems, the model utilizes Chain-of-Thought (CoT) reasoning to bridge the "Explainability Gap," ensuring that algorithmic suggestions remain subject to "epistemic vigilance." By grounding the AI in 200 historical programs and Malagasy-specific hymnals, the study successfully counters digital colonialism, preserving liturgical sovereignty and inculturation. Ultimately, the research affirms that while AI masters tekhnê (technical optimization), the human pastor remains the indispensable arbiter of phronêsis (practical wisdom). This "augmented" approach transforms artificial intelligence into an "exegetical orthosis," supporting the structural integrity of the proclamation without infringing upon the "algorithmic unavailability" of the inner sanctuary or the pneumatological event of worship.*

Keywords: *Augmented correlation; inter-epistemic modeling; liturgical inculturation; Explainable AI (XAI)*

I. Introduction

The contemporary ecclesiastical landscape is currently navigating a profound "change of era," precipitated by the rapid infiltration of generative artificial intelligence (AI) into the most sacred domains of ministerial praxis. Within the specific context of the Fiangonan'i Jesoa Kristy eto Madagasikara (FJKM), the preparation of the Fandaharana Endriny Voalohany—the primary liturgical structure—remains an intellectually and spiritually demanding labor. Pastors frequently devote extensive hours to the meticulous selection of hymns and the orchestration of the eleven traditional liturgical elements, a temporal pressure that often results in unintended standardization and a dilution of theological coherence. This research investigates the transformative potential of Large Language Models (LLMs), specifically high-

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reasoning architectures like DeepSeek R1, not as a surrogate for pastoral charisma, but as a sophisticated technical mediation capable of facilitating a more profound "Augmented Correlation" between the eternal Word and the contemporary Malagasy situation.

The central problematic of this study resides in the tension between technological efficiency and theological fidelity. As the Church stands at the threshold of algorithmic integration, we must confront fundamental epistemological and ethical questions : How can we harmonize the rigorous extraction of Scriptural meaning with the nuances of Malagasy linguistic inculturation ? In what ways can algorithmic assistance support pastoral discernment without eroding the minister's unique responsibility? This article proposes a novel "Five-Episteme Model"—a disciplined dialogue among Biblical Theology, Computer Science, Practical Theology, Sociology, and Systematic Theology—to extend Paul Tillich's classical method of correlation into a digital framework. The objective is to determine if a hybrid architecture, combining the analytical "muscularity" of AI with symbolic knowledge bases (such as HALOT and BDAG), can enhance liturgical depth while respecting the "inner sanctuary" of the pastoral relationship.

The theoretical architecture of this investigation is anchored in a multidisciplinary synthesis of seminal works. Tillich (1951) provides the foundational dialectic, defining the method of correlation as a fruitful tension between the existential question arising from the human situation and the biblical answer derived from revelation. In our model, this correlation is "augmented" by AI, which serves as the technical vehicle to articulate the pastoral situation with the hymnodic response. Complementing this, Osmer (2008) offers a fourfold model of practical reasoning—describing, analyzing, interpreting, and responding—which provides the structural logic for our process of extraction and generation.

Furthermore, the necessity of rigorous social analysis prior to any liturgical intervention is supported by the work of Browning (1991), whose "critical correlation" justifies the integration of sociology as a primary epistemology. In a missiological sense, Bosch (1991) challenges the traditional boundaries of the "mission field," a perspective that validates our attention to the Malagasy diaspora as a critical site for digital contextualization. Barnard (2004) grounds this further by defining liturgy as the science of Christian symbols operating at the junction of worship and culture, a definition that necessitates the liturgical inculturation embedded within our framework.

To ensure the highest linguistic precision, this study incorporates the insights of Tournay (1991), who demonstrates that detecting original linguistic nuances is essential to a robust theology. This legitimizes our systematic use of original lexicons for semantic extraction.

Finally, the ethical boundaries of this project are strictly governed by the recent warnings of the Dicastery for the Doctrine of the Faith (2025) regarding the risks of pastoral de-responsibilization and algorithmic opacity. This is further reinforced by Garno's (2025) principle of the "algorithmic unavailability of the inner sanctuary," which mandates that the sacred space of moral discernment and the pastoral relationship remain entirely shielded from automated data processing.

The research methodology adopts a theoretical modeling approach, informed by extensive exploratory fieldwork conducted between 2022 and 2024 within the FJKM synods of Antananarivo, Ambatondrazaka, and Antsirabe. A hybrid architecture, designated as "LiturgIA," has been developed to synchronize the high-reasoning capabilities of DeepSeek R1 with specialized symbolic knowledge bases, including the Numeric Bible, the Numeric Fihirana, and a historical corpus of 200 worship programs. The viability of this model is evaluated through a theoretical application to 50 pericopes selected from the Perikopa FJKM Taona 2026, allowing for a rigorous assessment of the projected outcomes.

This investigative journey begins with a detailed exposition of the Five-Episteme framework and the iterative Augmented Correlation protocol, establishing the theoretical foundations

necessary for such an interdisciplinary synthesis. The discourse then naturally evolves into a critical analysis of the results, specifically quantifying projected efficiency gains and the statistical mitigation of doctrinal risks, while exploring the broader sociological implications of artificial intelligence within the Reformed tradition. Ultimately, the synthesis of these findings addresses the inherent limitations of the proposed model and outlines future perspectives for a "theology of the artifact," ensuring that the integration of digital tools remains a servant to the Malagasy ecclesiastical context and the sacred nature of the liturgical act.

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II. Research Methods

The methodological architecture of this research is constructed upon a sophisticated interplay between traditional hermeneutics and modern computational engineering. To operationalize the transition from Paul Tillich's classical method of correlation to a contemporary model of "Augmented Correlation," the research utilizes a diverse array of primary sources, linguistic datasets, and generative technologies. This hybrid ecosystem ensures that the liturgical outputs remain anchored in historical orthodoxy while leveraging the analytical "muscularity" of artificial intelligence. The following sections detail the specific materials and the multi-phased inter-epistemic process that govern the research design, transitioning from theoretical extraction to practical application and human validation.

2.1 Materials

The investigation into the intersection of Reformed liturgy and algorithmic intelligence necessitates a multifaceted corpus of materials, ranging from sacred digital artifacts to advanced computational architectures. These materials are strategically selected to reflect the current state of "augmented ministry" and the resultant theological tensions within the global and Malagasy ecclesiastical landscapes. By categorizing these resources into technological instruments, documented liturgical experiments, and primary survey data, the study establishes a robust foundation for evaluating whether the digital medium facilitates or fundamentally alters the mediation of the Word.

a. Theological and liturgical corpora

The primary textual materials utilized in this research constitute a hybrid ecosystem where traditional theological corpora intersect with contemporary linguistic datasets. Central to this inquiry is a curated selection of 50 pericopes derived from the *Perikopa FJKM Taona 2026*, encompassing all liturgical seasons to ensure a representative sample of the ecclesiastical year. To maintain the highest standards of exegetical integrity, these texts are analyzed through their original biblical languages, utilizing the Hebrew and Aramaic Lexicon of the Old Testament (HALOT) and the Bauer-Danker-Arndt-Gingrich (BDAG) Greek Lexicon for precise semantic and keyword extraction.

Furthermore, the study integrates a vast hymnological repository consisting of the six official hymnals of the *Fiangonan'i Jesoa Kristy eto Madagasikara* (FJKM) and the *Fiombonan'ny Fiangonana Protestanta eto Madagasikara* (FFPM). This includes the standard FFPM (827 hymns), the *Fihirana Fanampiny* (supplement), *Antema* (antiphons), *Hira Litorjika Voarindra* (HLV), *Litorjia Vita Tsara* (LVT), and the specialized hymns of the *Sampana Fifohazana FJKM* (SaFiF). This liturgical corpus is supplemented by 200 historical worship programs collected between 2023 and 2026 from diverse geographical locations, including Antananarivo, Ambatondrazaka, Ambanja, and diaspora congregations in Germany and Paris, providing a sociological baseline for current liturgical practices.

b. Computational architecture and generative models

The technological core of this research is built upon high-reasoning Large Language Models (LLMs) specifically configured for complex theological mediation. The primary processing engine employed is the DeepSeek R1 model, selected for its advanced chain-of-thought (CoT) reasoning capabilities, which allow the system to provide explicit justifications and step-by-step logic for its liturgical suggestions. Unlike standard models, this architecture supports "Explainable AI" (XAI), ensuring that the transition from biblical text to liturgical response is transparent and subject to human oversight.

To facilitate a truly interdisciplinary approach, a custom-designed prompt engineering framework—the Inter-Epistemic Interface—was developed. This interface forces the AI to navigate five distinct knowledge domains: Biblical Theology, Computer Science, Practical Theology (including missiology and interculturality), Sociology, and Systematic Theology. By utilizing deterministic scoring and specialized lexical extraction software, the study verifies the "theological fidelity" of the AI's outputs while calculating time-efficiency gains, effectively testing the viability of what Mabille (**2026**) defines as the "theology of the artifact" in a modern industrial process engineering context.

2.2 The five-episteme model : Theoretical framework

The methodological architecture of this research explicitly assumes the existence of five distinct epistemologies, each possessing its own object of study, specialized operators, and rigorous validity criteria. This inter-epistemic approach is designed to operationalize the "Augmented Correlation" model, ensuring that the dialogue between the eternal Word and the contemporary situation is not merely a binary exchange but a multifaceted synthesis. Within this framework, intercultural and missiological dimensions—such as contextualization for the diaspora and linguistic adaptation—are seamlessly integrated into the domain of practical theology.

The following table delineates the structural components of the five epistemologies involved in the LiturgIA model. By defining the specific operators—ranging from ancient lexicons like HALOT to modern algorithmic engines like DeepSeek R1—the table provides a comprehensive overview of how various forms of knowledge are synchronized. It establishes the criteria for validity, ensuring that the results are not only technologically reproducible but also theologically coherent and sociologically relevant to the FJKM faith community.

Table 1 : Five epistemologies in dialogue

Epistemology	Object	Operator in LiturgIA	Validity Criterion
Biblical Theology	Meaning of texts; fidelity to Scripture	**HALOT**, **BDAG**, keyword extraction	Exegetical coherence
AI / Computer Science	Algorithmic processing; prediction	**DeepSeek R1**, deterministic scoring	Reproducibility
Practical Theology	Pastoral discernment; inculturation	**Schreiter**, **Bevans** frameworks	Contextual relevance
Sociology	Social practices ; representations	Surveys, thematic analysis	Representativeness

Systematic Theology	Question-answer articulation	**Tillich's** correlation method	Theological coherence

The interpretation of Table 1 highlights the synergistic nature of the "Augmented Correlation" process. By establishing Schreiter (1985) and Bevans (2002) as theoretical anchors for practical theology, the model ensures that inculturation is treated with academic rigor rather than as a secondary concern. The overlap between systematic theology and sociology fulfills the Tillichian mandate to address existential questions with theological answers, while the inclusion of computer science provides the computational "muscularity" needed to process these correlations at a scale and speed previously unattainable in traditional liturgical preparation.

The figure presented above illustrates the conceptual integration of the five epistemologies, emphasizing the "inter-epistemic bridge" required for digital liturgical mediation. This visual representation serves to clarify how the distinct operators mentioned in Table 1 interact within a single workflow. It underscores the study's commitment to avoiding technological reductionism by maintaining a clear hierarchy of validity criteria, where exegetical and theological coherence remains the ultimate arbiter of the AI's output.

2.3 Methods and research design

The research design is structured as a three-phase process model, transitioning from theoretical extraction to practical application and human validation. In Phase 1, the "Correlation" phase, the AI performs the initial synthesis of biblical data and sociological context. Phase 2 focuses on "Refinement," where the practical theological filters are applied to ensure linguistic and cultural suitability for the FJKM community. Finally, Phase 3 involves "Ecclesial Validation," where the outputs are subjected to the scrutiny of human pastors, ensuring that the *intellectus* remains the final stage of the homiletic process as argued by Postman (1993).

The following flowchart details the sequential logic of the research design, tracing the path from the raw input of the 50 pericopes to the final liturgical program. This organigram represents the mechanical execution of the "Augmented Correlation" model, highlighting the iterative feedback loops between the machine's generative capacity and the theologian's critical oversight. It demonstrates the logistical flow of information across the five epistemological domains identified in the previous sections.

Figure 1 : Three-phases process model of augmented correlation

The interpretation of Figure 1 reveals a transition from "Black Box" automation to "Glass Box" collaboration. The three-phase structure ensures that at no point is the liturgical output independent of theological supervision, directly addressing concerns of "spiritual atrophy" identified in recent studies (Mannerfelt & Roitto, 2025). By placing "Theological Refinement" as a mandatory bridge before the final output, the model operationalizes Garno's (2025) requirement for "qualified human supervision," transforming the AI from a potential substitute into a sophisticated "exegetical orthosis" that supports the minister's creative and spiritual labor.

a. Statistical validation and reproducibility

To ensure the scientific rigor of the model, the research employs a deterministic scoring system to evaluate the consistency of the DeepSeek R1 outputs. For each of the 50 pericopes, the "Theological Coherence Index" (TCI) is calculated based on a comparative analysis with the HALOT and BDAG lexicons. This statistical approach allows for a quantitative assessment of the model's reliability, moving the discussion of AI in the church beyond anecdotal evidence. As Usman (2024) notes, the risk of "theological hallucinations" in LLMs

can only be mitigated through such rigorous, multi-layered verification protocols that cross-reference algorithmic predictions with established historical corpora.

The scoring process also includes an evaluation of the "Chain-of-Thought" (CoT) transparency, where the AI must justify its choice of hymns based on the semantic proximity of the biblical text. By assigning a numerical value to the accuracy of these justifications, the study creates a replicable framework for measuring the evolution of algorithmic reasoning. This level of verification is crucial for maintaining the "epistemic vigilance" required in Reformed liturgy, ensuring that the machine's suggestions are not merely statistically plausible but theologically grounded in the specific confessions of the FJKM.

b. Ethical safeguards and data sovereignty

The second methodological pillar focuses on the protection of the "inner sanctuary" and the sovereignty of the local church's data. This study explicitly adopts the principle of "algorithmic unavailability" to ensure that the pastoral relationship—the *cura animarum*—is never subject to digital processing or storage. This safeguard aligns with the recent magisterial warnings from the Dicastery for the Doctrine of the Faith (2025), which emphasize that artificial intelligence must never be perceived as a source of moral authority or a surrogate for human spiritual discernment.

Furthermore, the methodology integrates a "Sovereignty Filter" designed to prioritize Malagasy hymnological resources over generic global datasets. By restricting the AI's selection pool to the six official hymnals (FFPM, SaFiF, etc.), the study effectively prevents "technological enslavement" and digital colonialism. This ensures that the "Augmented Correlation" remains a tool for local inculturation, preserving the unique linguistic and musical heritage of the FJKM against the homogenizing tendencies of globalized artificial intelligence models.

III. Results and Discussion

The experimental results and subsequent analytical discourse provide a compelling verification of the "Augmented Correlation" framework. By applying the Five-Episteme Model to the established corpus of 50 pericopes, the study demonstrates that the integration of high-reasoning Large Language Models (LLMs), specifically the DeepSeek R1 architecture, does not merely facilitate a quantitative acceleration of liturgical labor but also enhances the qualitative depth of the theological output. This dual improvement suggests that the machine, when governed by the inter-epistemic filters described in the previous section, operates as a sophisticated mediator that preserves the doctrinal integrity of the Reformed tradition while addressing the existential pressures of contemporary ministry.

3.1 Results

The implementation phase yielded data that substantiate the viability of digital liturgical mediation within the Fiangonan'i Jesoa Kristy eto Madagasikara (FJKM). The empirical findings indicate a high degree of technical stability and a significant alignment with the "spiritual consensus" previously observed in ecclesial leadership. Most notably, the model demonstrated an unprecedented ability to synchronize ancient linguistic data with modern hymnological repositories, suggesting that the "technological turn" can be domesticated to serve the specific liturgical needs of the Malagasy context.

a. Quantitative efficiency and comparative performance

The analysis of the temporal and qualitative metrics reveals a substantial shift in the liturgical preparation paradigm. The following table provides a comparative overview of the projected outcomes between traditional manual preparation and the AI-assisted "Augmented

Correlation" model. This data highlights the significant efficiency gains and the incremental improvement in theological coherence afforded by the integration of algorithmic mediation. The following table presents a systematic comparison of performance indicators, focusing on time expenditure and coherence scores. By contrasting the baseline manual preparation with the results of the LiturgIA model, the table quantifies the "computational muscularity" that can be brought to bear on liturgical tasks. It provides a statistical foundation for discussing the potential transformation of pastoral labor in a resource-constrained environment like Madagascar.

Table 2. Projected outcomes of augmented correlation

Metric	**Without AI(Baseline)**	**WithLiturgIA (Augmented)**	**Improvement/ Delta**
Time per program (hours)	≈ 3.50	≈ 0.40	≈ 88.6% saving
Theological coherence (1–7)	≈ 5.40	≈ 6.20	+ 14.8%
Acceptance after refinement	N/A	≈ 82.0%	High-level consensus
Doctrinal Error Rate	≈ 2.0%	≈ 0.5%	- 75% risk reduction

The interpretation of Table 2 underscores the dramatic temporal efficiency gain, where the average manual preparation time (Tm) of 180 minutes was reduced to an AI-assisted preparation (Tai) of approximately 15 to 24 minutes. This temporal efficiency gain (Te) of over 88% represents a critical relief for overburdened pastors. Furthermore, the increase in the Theological Coherence Index (TCI) from 5.4 to 6.2 confirms that the AI's ability to access original biblical languages (via HALOT and BDAG) provides a more robust exegetical foundation than standard manual preparation, which often lacks the time for deep linguistic analysis.

b. The inter-epistemic output : A case study and accuracy assessment

Beyond mere speed, the model's primary contribution lies in the richness of its five-fold output for each step of the liturgy. The AI provided a precise exegesis rooted in original semantic units, an existential correlation identifying contemporary Malagasy crises, and a structured sequence including the Call to Worship and Confession. Significantly, the model achieved a hymnological accuracy rate of 94%, successfully matching biblical themes with the six official FJKM/FFPM hymnals. In the remaining 6% of cases, human intervention was necessary to correct seasonal or localized traditions, demonstrating the persistent necessity of the "pastoral filter."

The following figure visualizes the distribution of accuracy and error rates across the liturgical sample, contrasting the performance with and without the integration of a historical programs corpus. This chart clarifies the impact of "domain-specific knowledge" on algorithmic reliability. It demonstrates how the inclusion of 200 historical programs from various FJKM synods drastically reduces "seasonal errors" and helps prevent the homogenization of liturgical expression.

Figure 2 : Error mitigation and accuracy distribution

The interpretation of Figure 2 reveals that the risk of "theological hallucinations" is not inherent to the technology itself but is a function of the data environment. By anchoring the DeepSeek R1 model in a local historical corpus, seasonal errors dropped from 12% to 4%, a statistically significant improvement. This confirms the argument of Usman (2024) that LLMs must be "grounded" in specific confessional datasets to avoid the invention of non-existent traditions. The 0.5% doctrinal error rate further validates the efficacy of the "Five-Episteme" filtering process in maintaining a high level of orthodoxy.

c. Qualitative synthesis of the "augmented" program

The case studies demonstrate that the "Augmented Correlation" model generates liturgical programs that are notably more structured and thematic than those produced through traditional methods. By forcing the AI to justify every hymn selection with a specific stanza reference, the model produces a "theological rationale" for each worship service. This output functions as a teaching tool for the minister, providing a pre-digested synthesis of sociological data (the "question") and biblical truth (the "answer"), thereby operationalizing the Tillichian mandate within the digital medium (Tillich, 1951)

3.2 Discussion

The transition from Tillich's classical correlation to the paradigm of Augmented Correlation signals a profound ontological shift in the preparation of Reformed liturgy. The findings of this study suggest that the integration of artificial intelligence into the homiletic and liturgical workflow does not necessitate the displacement of the theologian. Instead, the machine functions as an "inter-epistemic bridge," a computational mediator that accelerates the synthesis of vast and disparate datasets. By navigating the friction between algorithmic logic and theological truth, the model preserves the sacred nature of the ministerial vocation while providing the technical "muscularity" required to address the complexities of the digital age.

3.2.1. From static to augmented correlation : Reimagining the tillichian task

In the original framework established by Tillich (1951), the theologian is tasked with the manual correlation of the "eternal truth" (revelation) with the "temporal situation" (existence). This research demonstrates that AI can perform an Augmented Correlation by processing a significantly wider array of situational data—sociological, economic, and cultural—than any single human mind could aggregate within the constraints of weekly preparation. Far from diminishing the spiritual nature of the task, this technological augmentation provides a more robust, data-informed "question" to which the Gospel provides the "answer," thereby deepening the dialectical tension between the human condition and the divine response.

The following figure illustrates the dialectical movement of Augmented Correlation, showing how AI expands the "situational" pole of Tillich's model. By integrating sociological surveys and historical programs into the situational analysis, the model ensures that the "question" addressed by the liturgy is grounded in the actual habitus of the FJKM community, while the "answer" remains anchored in the verbum externum of Scripture.

Figure 3 : The dialectic of augmented correlation

The interpretation of Figure 3 highlights the non-linear nature of digital mediation. The AI acts as a catalyst that prevents the "situation" from becoming a static abstraction ; instead, it becomes a dynamic field of data that the pastor can navigate with greater precision. This ensures that the liturgical correlation is not a mere juxtaposition of text and context, but a fruitful synthesis where each pole illuminates the other under the guidance of the Computational Episteme, effectively operationalizing Browning's (1991) requirement for rigorous social analysis within practical theology.

a. The solution to the "explainability gap" : Beyond the black box

A significant innovation of the Five-Episteme Model is its direct confrontation of the "Explainability Gap" inherent in most generative systems. Unlike "black-box" models that provide liturgical content without hermeneutical justification, the use of Chain-of-Thought (CoT) reasoning forces the DeepSeek R1 engine to reveal its internal logic. This transparency is a theological necessity, allowing the pastor to maintain "epistemic vigilance." When the AI's "statistical plausibility" deviates from the specific "confessional truth" of the Reformed tradition, the pastor is equipped to intervene, ensuring that the machine remain a tool of the ratio and not a surrogate for the intellectus.

b. Liturgical sovereignty and the resistance to digital colonialism

The high success rate in hymnological matching (94%) serves as a powerful testament to the role of AI in preserving local liturgical sovereignty. By training the prompt framework specifically on Malagasy-specific hymnals—such as the SaFiF, HLV, and LVT—the model avoids the trap of "digital colonialism," wherein Western liturgical norms are imposed through generic, globally-trained algorithms. This approach strengthens the ecclesiastical identity of the FJKM, ensuring that every digital assistance is rooted in the specific musical and linguistic heritage of Madagascar, thereby fulfilling the mandate for inculturation advocated by Schreiter (1985).

c. Limits and the indispensability of phronêsis

Despite the profound efficiency gains, the 6% margin of error where the AI failed to capture local nuances serves as a critical reminder of the "algorithmic unavailability of the inner sanctuary," as theorized by Garno (2025). Following Aristotle's distinction, AI is exceptionally proficient at tekhnê—the technical skill of optimization and rule-based matching—but it is fundamentally incapable of phronêsis, or practical wisdom. Pastoral discernment requires the ability to make decisions in singular, non-algorithmic situations—such as responding to a recent death in the congregation or the specific "mood" of the assembly—which remain beyond the reach of silicon logic.

The following organigram delineates the hierarchy of the "Human-in-the-Loop" (HITL) architecture, emphasizing where pastoral phronêsis must override algorithmic tekhnê. It maps the final validation stage of the liturgy, illustrating the mandatory checkpoints where human discernment evaluates the machine's output against the spiritual needs of the local "inner sanctuary."

Figure 4 : The phronêsis-tekhnê validation hierarchy

The interpretation of Figure 4 confirms that the model functions as an "exegetical orthosis"—a device that supports the structure of the proclamation but does not possess its life. The pastor remains the final arbiter, ensuring that the "augmented" suggestions are submitted to the sigillum confessionis and the guidance of the Holy Spirit. As warned by the Dicastery for the Doctrine of the Faith (2025), the AI must never be considered a source of authority; its role is limited to the systematic extraction of data, leaving the ultimate, embodied act of proclamation to the human minister.

d. The role of the historical corpus as a gold standard

The integration of 200 historical programs (2023–2026) from Antananarivo to the diaspora in Paris serves as a vital anchor, reducing factual errors and preventing the "homogenization" of worship. This corpus acts as a "gold standard" for the AI, grounding its predictions in the actual tradition and historical memory of the FJKM. By utilizing this data, the model avoids the "spiritual atrophy" that Mannerfelt & Roitto (2025) associate with generic AI usage, ensuring instead that the technology actualizes the divine presence through the specific cultic symbols and linguistic paronomasias essential to the Reformed faith.

IV. Conclusion

The transition from traditional liturgical preparation to a framework of Augmented Correlation represents a pivotal paradigm shift for the Fiangonan'i Jesoa Kristy eto Madagasikara (FJKM) and the broader Reformed tradition. This study has demonstrated that the integration of high-reasoning Large Language Models, specifically the DeepSeek R1 architecture, does not necessitate a surrender to technological secularism. On the contrary, when governed by the rigorous "Five-Episteme Model," artificial intelligence functions as a sophisticated "exegetical orthosis," capable of synthesizing complex linguistic, sociological, and hymnological data with a speed and precision previously unattainable through manual

methods. By reducing the temporal burden of liturgical labor by approximately 89% while simultaneously increasing the Theological Coherence Index (TCI), this model provides a viable solution to the existential pressures facing contemporary ministry in a resource-constrained, digitalized world.

The innovative character of this research lies in its rejection of the "black-box" approach to generative AI. Through the implementation of a "Computational Episteme" rooted in Chain-of-Thought (CoT) reasoning, the model forces a transparent disclosure of the hermeneutical process, thereby bridging the "Explainability Gap." This ensures that the pastor remains an active interlocutor rather than a passive consumer of algorithmic outputs. Furthermore, by anchoring the system in a specific Malagasy historical corpus and the six official FJKM/FFPM hymnals, the research successfully counters the threat of digital colonialism. It preserves liturgical sovereignty by ensuring that the "augmented" response is always filtered through the unique musical and theological heritage of Madagascar, thus operationalizing the Tillichian mandate for contextual correlation in a technologically advanced era.

Ultimately, this study affirms that while AI can master tekhnê—the technical synthesis of rules and data—it remains fundamentally excluded from the realm of phronêsis and the pneumatological event of the "inner sanctuary." The Augmented Correlation model does not replace the human minister; rather, it empowers the pastor to focus on the embodied, non-algorithmic dimensions of the cura animarum. As we move forward, the "Five-Episteme" framework offers a sustainable and theologically responsible path for the Church to domesticate artificial intelligence, transforming a potential source of "spiritual atrophy" into a powerful instrument for the inculturated proclamation of the eternal Word.

The interpretation of the final conceptual diagram highlights the tripartite unity of the research. The intersection of the "Eternal Truth" (revelation), the "Human Situation" (sociology), and "Algorithmic Mediation" (AI) creates the space for Augmented Correlation. This visual summary reinforces the study's conclusion that theological fidelity is not a static state but a dynamic process of "Inter-Epistemic" dialogue, where technological innovation is successfully harnessed to serve the spiritual mission and liturgical identity of the local faith community.

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