

AI-Dakwah: Development of Multilingual Friday Sermon Texts Based on Artificial Intelligence for Global Da'wah

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Abstract. Artificial intelligence (AI) provides new opportunities to improve the efficiency, accessibility, and multilingual reach of Islamic da'wah. This study developed and evaluated AI-Dakwah, an AI-supported workflow for producing Friday sermon texts in Indonesian, English, Javanese, and Arabic. The study employed a Research and Development (R&D) design with qualitative and experimental elements through an Adaptive AI Development Framework covering preparation, topic exploration, text generation and translation, Islamic-content validation, expert review, editing, and digital publication. The development process involved a needs analysis with ten preachers and fifty congregants and a dataset of 40 Friday sermon texts in four languages. Large Language Models were used to prepare initial drafts, while generated materials were checked against Qur'an and hadith resources and reviewed by two Islamic scholars and one Arabic-language expert. User evaluation showed positive results, with mean ratings of 4.4/5 for language quality, 4.0/5 for material depth, and 4.7/5 for conformity with Islamic values. Reported preparation time decreased from approximately eight hours manually to two hours with AI assistance. The findings indicate that AI-Dakwah can support more efficient and accessible multilingual sermon production when AI is used as an assistive technology under human and scholarly supervision. The study also identifies limitations related to regional-language data, evaluation design, and the absence of controlled behavioral comparisons. The study concludes that responsible human-in-the-loop governance is essential for maintaining theological accuracy, cultural relevance, and editorial accountability in AI-assisted Islamic da'wah.

Keywords: artificial intelligence; digital da'wah; Friday sermon; multilingual communication; natural language processing; religious technology

INTRODUCTION

Artificial intelligence (AI) is increasingly used to generate, translate, analyze, and personalize digital content. Its development has transformed communication practices across sectors and has created new possibilities for religious communication as well. In Islamic da'wah, Friday sermons occupy a strategic position because they provide a regular public forum through which religious understanding, moral awareness, and social responsibility can be strengthened. The preparation of a good sermon, however, requires adequate subject knowledge, time, language competence, and sensitivity to the cultural background of congregations. These requirements become more demanding when a sermon is expected to reach audiences beyond a single linguistic community. Foundational AI concepts relevant to these developments are described in standard AI literature [1].

Previous work cited in the research source indicates that AI can automate da'wah-content production, support audience analysis, and personalize religious communication. Priyatna and Nuwairah [2], [3] describe AI as a means of strengthening Islamic communication in the digital era, while Habibullah [4] emphasizes that AI can support da'wah planning, implementation, and evaluation when ethical and religious considerations remain central. The source research also frames AI as a tool that should extend, rather than replace, the role of the preacher. This distinction is particularly important for religious content because linguistic fluency alone does not guarantee theological accuracy.

Several practical problems motivate the development of AI-Dakwah. First, multilingual Friday sermon materials remain less accessible than single-language materials, especially when Indonesian content must be adapted into English, Javanese, and Arabic. Second, manual sermon preparation can be time-consuming and may lack a standardized workflow. Third, AI-generated religious texts require validation because language models may produce inaccurate interpretations, inappropriate references, or statements that do not adequately reflect Islamic principles. Fourth, differences in digital literacy among preachers can limit the effective use of AI. The research source therefore proposes an integrated system that combines idea

exploration, multilingual generation, authoritative-source checking, expert review, and multi-format publication. Responsible use also requires safeguards against inaccurate automated religious reasoning and content validation risks [5], [6], [7].

The research gap identified in the source concerns the need for an integrated and responsible AI-supported workflow for multilingual Friday sermon production. Existing approaches to AI-assisted religious content production do not necessarily combine multilingual generation, Islamic-content validation, expert review, and structured publication within a single workflow. The proposed AI-Dakwah model addresses this gap by combining four languages—Indonesian, English, Javanese, and Arabic—with content validation and publication. The study therefore addresses both a technological gap and a da'wah-management gap: how AI can be incorporated into a responsible process in which efficiency is increased without removing human theological oversight.

Accordingly, this study aims to develop and evaluate an AI-Dakwah system for multilingual Friday sermon production. Specifically, it examines the development process, the reported quality of generated and translated texts, user acceptance, production-time efficiency, and the role of scholarly validation. The study also discusses the opportunities and limitations of using AI as an assistive technology for global Islamic da'wah.

MATERIALS AND METHODS

Research Design

This study used a Research and Development (R&D) design with qualitative and experimental elements. The development model was described in the source as an Adaptive AI Development Framework, which combines data collection, system design, testing, evaluation, and refinement. The approach was selected because the research objective was not only to describe the use of AI in da'wah but also to produce a functional workflow for developing multilingual Friday sermon texts. The mixed-method orientation is consistent with established research-design guidance [8].

Preparation and Data Sources

The preparation stage consisted of three activities. First, a literature study was conducted to establish a conceptual basis for AI, digital da'wah, natural language processing, and religious-content validation. Second, a needs analysis was conducted through a survey of ten preachers and fifty congregants to identify the need for multilingual Friday sermon materials. Third, the study collected 40 Friday sermon texts in Indonesian, English, Javanese, and Arabic as development data. The source does not provide a detailed breakdown of the number of texts by language; therefore, the present article retains the dataset size without assigning an unsupported distribution.

AI-Dakwah Development Procedures

- Topic and idea exploration. AI clustering, including BERTopic, was used to identify sermon-topic trends from the dataset. Themes were selected with attention to contemporary issues such as religious moderation and technology in Islam.
- Text generation and translation. Large Language Models (LLMs), specifically GPT-4 and Claude 3 as reported in the source [9], were used to prepare initial sermon drafts. Translation was supported by Google Translate API and a Javanese-specific natural language processing model.
- Islamic-content validation. Generated content was checked against Qur'an and hadith resources [10] and then reviewed by two Islamic scholars and one Arabic-language expert. The purpose of this stage was to reduce theological, citation, and language errors before publication.

Testing and Evaluation

The reported system outcomes were summarized using descriptive statistics. The study also compared production time between manual sermon preparation and AI-assisted preparation. Feedback from users and experts was used to refine the system, particularly in relation to regional-language limitations, depth of religious references, and practical examples.

Ethical and Religious Safeguards

Because the system produces religious texts, validation was treated as a central methodological component rather than a final optional step. The source emphasizes three principles: references should be grounded in the Qur'an, hadith, and valid scholarly opinions; AI should remain a tool rather than a substitute for the preacher; and published content should support social cohesion rather than division. These safeguards informed the human-review stage and the interpretation of the system's performance.

RESULTS AND DISCUSSION

Development of the AI-Dakwah System

The research reported that the AI-Dakwah system was successfully developed into a recurring production workflow for the 'An-Najah Friday Sermon' e-book. The system generated weekly sermon materials in four languages: Indonesian, English, Javanese, and Arabic. Rather than treating translation as an independent activity, the workflow linked topic exploration, draft generation, translation, religious validation, editing, and publication. This end-to-end design is important because the principal challenge in digital da'wah is not merely generating words but maintaining coherence and accountability across the whole production process.

The system's multilingual orientation directly addresses the accessibility problem identified at the beginning of the study. Indonesian provides the primary language context, English increases potential international accessibility, Arabic supports communication with a broader Islamic linguistic tradition, and Javanese responds to the needs of local and pesantren communities. The source notes that Javanese remains a particular technical challenge because available AI models have weaker performance in regional and informal varieties. Consequently, the system's multilingual capability should be understood as an achieved workflow with continuing room for language-model improvement.

Table 1. AI-Dakwah end-to-end development workflow.

Stage	Main activity	Output
1. Topic exploration	Trend and needs analysis; BERTopic clustering	Selected sermon themes
2. Generation	LLM-assisted drafting in four languages	Initial sermon texts
3. Validation	Qur'an/hadith checking and expert review	Validated sermon content
5. Distribution	Digital dissemination	Accessible multilingual materials

Translation and Content Quality

User evaluations also showed generally positive acceptance. Language quality received a mean score of 4.4 out of 5, material depth 4.0, and conformity with Islamic values 4.7. The highest score for Islamic-values conformity is particularly relevant to the research objective because it suggests that respondents considered the generated materials broadly compatible with the intended religious framework. At the same time, the lower score for material depth indicates a remaining weakness: users wanted richer hadith references and more practical examples. The results therefore support a complementary rather than replacement model of AI use.

Table 2. Reported user assessment of AI-Dakwah content quality.

Assessment aspect	Mean score (1–5)	Reported interpretation
Language quality	4.4	Easy to understand; good structure
Depth of material	4.0	Relevant, but needs enrichment of hadith references
Conformity with Islamic values	4.7	Almost all content considered sharia compliant

Efficiency and Accessibility

One of the clearest practical findings was the reported reduction in sermon-preparation time. Manual preparation was estimated at approximately eight hours, while AI-assisted preparation required about two hours per script. This represents a reported reduction of approximately 75% in preparation time. The efficiency gain is meaningful for preachers who need to allocate more time to studying references, contextualizing messages, practicing delivery, and engaging with congregational needs. This localized efficiency result can be situated alongside broader analyses of AI-related productivity potential [11].

The system also broadened the potential distribution of sermon materials. The source reports that English and Arabic versions were downloaded by Muslim communities in Europe and the Middle East, while the Javanese version received positive responses from Islamic boarding schools in Central and East Java. These figures suggest that multilingual publication can turn a locally produced sermon resource into a transnational digital da'wah product. The institutional relevance of digital da'wah is also reflected in national guidance on da'wah digitalization [12].

Human Oversight as a Core Design Principle

The findings reinforce the argument that AI should not be positioned as an autonomous religious authority. The source identifies theological accuracy, ethics, and language limitations as major challenges. A language model can produce persuasive prose while still making errors in interpretation or religious references. Therefore, the scholarly review stage is not an obstacle to innovation; it is a design feature that

makes the technology more appropriate for religious communication. These safeguards align with international human-oversight and responsible-AI guidance [13], [14], [15].

This principle also addresses the risk of diminishing the originality of preachers. The study reports that AI can reduce the burden of drafting, but excessive dependence may weaken the preacher's individual voice and contextual judgment. An effective workflow should therefore reserve human responsibility for selecting themes, determining theological positions, contextualizing examples, checking references, and deciding whether a text is appropriate for a particular congregation. AI can accelerate production, but the preacher remains responsible for the final message.

Regional Language and Cultural Adaptation

Javanese presents an important test of the system's cultural adaptability. The source reports that the system is currently more limited to formal Javanese, particularly *krama inggil*, and that the sermon dataset in regional languages remains limited. To address this challenge, the development team proposed adding Javanese sermon data from *pesantren* literature. This strategy reflects a broader principle in multilingual AI: language adaptation requires more than literal translation. Religious terms, politeness levels, metaphors, examples, and culturally familiar forms of address can influence whether a sermon is perceived as natural and persuasive.

The same issue applies to Arabic. The initial system focuses on standard religious Arabic, while the source recommends future inclusion of non-formal Arabic varieties (*Amiyyah*) to widen accessibility. Such expansion should nevertheless be accompanied by careful linguistic and theological review because dialectal variation can affect meaning, register, and religious terminology.

Comparison with the Research Gap

The study's contribution lies in integrating four-language sermon generation with validation and publication within a single workflow. Compared with fragmented approaches to AI-assisted religious content production, AI-Dakwah is presented as a more complete pipeline from topic exploration and generation to scholarly validation and dissemination. Its principal advantages are multilingual coverage, recurring publication, and explicit scholarly validation.

Study Limitations

Several limitations should be considered when interpreting the findings. The source study does not provide a detailed language-by-language breakdown of the 40-text dataset, item-level questionnaire data, inter-rater reliability, or a controlled experimental comparison of AI-assisted and manual sermon production. The available evidence therefore supports conclusions about workflow feasibility, user acceptance, and reported efficiency, but not broad causal claims about religious learning or behavioral change. In addition, the Javanese component remains constrained by limited regional-language data and the predominance of formal varieties. These limitations identify clear priorities for subsequent development and evaluation.

Implications for Digital Islamic Education and Da'wah

From an educational perspective, AI-Dakwah can support the professional development of preachers by shifting part of their effort from mechanical drafting toward higher-level tasks such as contextualization, source verification, communication strategy, and reflection on congregational needs. The source also reports training for fifty preachers, indicating that digital literacy is itself an important part of implementation. Without training, the existence of an AI tool does not automatically produce better da'wah.

For da'wah institutions, the findings suggest that a sustainable AI strategy should combine technology, authoritative religious resources, human expertise, and distribution partnerships. The proposed future integration of classical Islamic references, including tafsir and fiqh resources, as well as an AI-based hadith checker, could strengthen the system. However, such integration should remain subject to scholarly oversight because database matching alone cannot resolve all questions of interpretation, context, authenticity, or jurisprudential disagreement.

CONCLUSIONS

This study developed and evaluated AI-Dakwah as an integrated workflow for producing multilingual Friday sermon texts in Indonesian, English, Javanese, and Arabic. The development process combined topic exploration, LLM-assisted drafting, translation, Qur'an and hadith checking, scholarly review, language review, editing, and digital publication. The design responds to a practical need for a more systematic approach to multilingual da'wah while preserving human responsibility for theological and contextual decisions.

The reported findings indicate three principal contributions. First, AI-Dakwah demonstrates the feasibility of connecting multilingual sermon generation with Islamic-content validation and expert review rather than treating text generation as an isolated technical task. Second, user evaluation was generally positive, with mean ratings of 4.4/5 for language quality, 4.0/5 for material depth, and 4.7/5 for conformity with Islamic values. Third, the reported reduction in preparation time from approximately eight hours to two hours suggests substantial potential for improving the efficiency of sermon preparation. These findings support the use of AI as an assistive technology that can reduce routine drafting work and allow preachers to devote more attention to contextualization, source verification, and congregational needs.

At the same time, the study does not establish that AI-generated sermons are superior to manually prepared sermons. The evaluation is based primarily on descriptive user assessments, expert validation, and reported production-time comparisons. The study also does not provide language-specific translation metrics, item-level questionnaire analysis, inter-rater reliability, or a controlled behavioral comparison between AI-assisted and manual sermons. The findings should therefore be interpreted as evidence of feasibility, usability, and potential efficiency rather than definitive evidence of effectiveness in changing religious knowledge, attitudes, or behavior.

The central design principle emerging from the study is human-in-the-loop governance. AI-Dakwah should not be treated as an autonomous religious authority. The preacher and qualified scholars remain responsible for selecting themes, verifying Qur'anic and hadith references, assessing theological interpretations, adapting language and examples to local contexts, and approving the final sermon. This principle is consistent with broader responsible-AI guidance emphasizing human oversight, transparency, risk management, and trustworthy use of AI systems.

Future research should strengthen the evidence base through larger and more diverse samples of preachers and congregants, systematic expert-rating procedures, language-specific evaluation, longitudinal studies of user acceptance, and controlled comparisons between AI-assisted and conventional sermon preparation. The multilingual dataset should also be expanded, particularly for Javanese and other regional varieties, while maintaining careful theological and linguistic review. Further development should prioritize authoritative Islamic source integration, transparent citation practices, privacy protection, and continuous risk assessment. In this way, AI-Dakwah can evolve from a promising production workflow into a more robust, accountable, and context-sensitive model for digital Islamic education and da'wah.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest concerning the publication of this article.

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