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ABSTRACT OF THE DOCTORAL DISSERTATION

The Role and Significance of Artificial Intelligence Systems in the Religious Faith Formation of Youth. A Pastoral Study Based on Research Conducted among High School Students in the Diocese of Łowicz

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The primary aim of the dissertation was to examine how rapidly developing artificial intelligence (AI) systems may influence four dimensions of Christian formation—intellectual, spiritual, moral, and communal—among young people. The research sample comprised third- and fourth-year students of general secondary schools and fourth- and fifth-year students of technical schools from the Diocese of Łowicz. The results of the research are presented across five chapters, with the final, sixth chapter—of an experimental nature—focusing on the prognostic and simulation capabilities of contemporary AI models, specifically ChatGPT 4o.

The chapters are preceded by an introduction of a theoretical character. It provides a historical overview of AI development and systematically presents the Church's teaching on the advancement of the sciences and technology, with particular emphasis on new information technologies, including AI systems. The introduction also formulates practical and pastoral postulates, situating the reflection on AI within pastoral theology, understood as the discipline concerned with the Church's activity and its realisation in specific historical and cultural contexts.

The first chapter focuses on methodological issues and the sociological and demographic conditions of the surveyed group. The primary research method adopted was the exploratory method, commonly applied in the social sciences. Additionally, auxiliary methods were employed, such as statistical methods (for the interpretation of empirical material), as well as analytical and synthetic methods (for deriving theoretical conclusions and practical postulates). The chapter also presents the research tool used—an online questionnaire (CAWI)—and describes the research process, including a pilot study. The final section provides the socio-demographic characteristics of the respondents, including demographic, religious, social, educational, and axiological aspects.

The second chapter describes the respondents' perception of AI systems, their patterns of use, and both positive and negative experiences with these technologies. It addresses subjective and objective dimensions of AI perception, identifies the AI models most frequently used and their purposes, and outlines the benefits and risks perceived by the youth.

The third chapter explores the potential of new technologies in intellectual and doctrinal formation within the shaping of religious attitudes. It presents findings on the possible use of AI in areas such as the existence and nature of God, the transmission of the truths of faith taught by the Church, sacramental education and formation, and biblical formation. AI is analysed here as a technology that can enhance human cognitive capacities and support the intellect in the context of religious formation.

The fourth chapter focuses on the application of AI in catechetical, prayer, and spiritual support. It presents the youth's views on both the benefits and drawbacks of using AI in catechetical activities and considers the potential of AI as prayer assistants and spiritual director functioning as relational assistants supporting the spiritual needs of individuals.

The fifth chapter examines AI in the context of morality, liturgical life, and parish settings. It discusses positive and negative aspects of AI use in moral formation, liturgical and sacred art generated by AI, as well as in parish life and activities. AI technologies are presented as tools supporting human creativity and as digital assistants aiding organisational matters.

In the final part of the dissertation, an attempt is made to assess the capacity of large language models (ChatGPT 4o) to simulate the opinions and responses of young people, thus enabling reflection on the use of such tools in scientific research and religious education. In this experiment, 240 real individuals from the 964 respondents were simulated by the AI model, which, "impersonating" specific individuals, responded to the research questionnaire. Eleven demographic questions from the survey's introductory section were used to create GPT-based personas, and statistical analysis was employed to compare the real and simulated groups.

The entire work is set within a broad theological, social, and educational context. It draws on both global literature and the latest Church documents, including *Antiqua et nova* by the Dicastery for the Doctrine of the Faith and the Dicastery for Culture and Education. The dissertation concludes with a glossary of theological, sociology of religion, religious studies, philosophy of mind, cognitive science, and cognitive informatics terms, serving as a support for deeper understanding and analysis of the work's content.