SCHOOL MANAGEMENT SYSTEM: EVENT MANAGEMENT SYSTEM WITH BUSINESS INTELLIGENCE POWERED BY A.I VIDEO GENERATOR

AUTHORS
Robert Lourd Cruz
John Arnel Mansueto
Demver Mark Poserio
Christopher Reboton
Zedrick Vincecruz

RESEARCH ADVISER
Marifel Julianda Laynesa

AFFILIATION
Bestlink College of the Philippines

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ABSTRACT

Efficient management of school events and access to insightful data analysis are essential for cultivating a dynamic and well-organized academic environment. This study introduces the development and evaluation of an innovative School Management System (SMS) that integrates an Event Management module with Business Intelligence (BI) features, enhanced by an AI-powered Video Generator. The system is designed to streamline event booking and scheduling processes for teachers while equipping administrators with comprehensive oversight, real-time analytics, and a creative communication tool for promoting school events. By leveraging automation and AI, the system aims to enhance operational efficiency, facilitate data-driven decision-making, and foster stakeholder engagement within the academic community. The system was developed using a user-centered design approach, incorporating iterative feedback from prospective teacher and administrator users throughout the development process. The School Management System and its integrated Event Management module were designed to support key functionalities, including event booking, approval workflows, and the historical tracking of past events. Business Intelligence (BI) capabilities were embedded to generate dynamic reports and data visualizations, enabling administrators to gain insights into event trends and usage patterns. Additionally, an AI Video Generator was integrated to automatically produce promotional or summary videos using event-specific details, enhancing communication and engagement. The system's functionality and usability were assessed through structured user testing sessions with teachers and administrators. Evaluation focused on the efficiency and intuitiveness of the event booking process, the clarity and relevance of BI-generated reports, and the perceived usefulness and quality of the AI-generated videos. User testing revealed a notable improvement in the efficiency of event booking and scheduling when compared to traditional, manual processes. Teachers reported faster and more intuitive workflows, while administrators benefited from enhanced oversight through features such as a centralized event calendar, detailed event history, and comprehensive analytics dashboards. The integrated Business Intelligence tools provided actionable insights into event trends and usage, supporting data-driven decision-making. Additionally, the AI Video Generator was well-received, with users highlighting its value in promoting events and enhancing communication within the school community. Overall, the system effectively delivered on its intended functionalities, successfully meeting the needs of both teacher and administrator users, particularly in streamlining event-related tasks. The integrated School Management System, enhanced with Event Management functionality and AI-powered Business Intelligence, presents a promising advancement in the modernization of school event coordination. By streamlining workflows, simplifying event scheduling, and centralizing information access, the system has significantly improved operational efficiency for both teachers and administrators. The inclusion of data analytics features supports evidence-based decision-making, while the AI Video Generator introduces an innovative method for event promotion and stakeholder engagement. These findings suggest that combining automation, analytics, and AI-enhanced communication can offer substantial improvements in administrative processes within educational institutions. Future developments could focus on deeper integration with existing academic and administrative systems, such as learning management platforms or attendance monitoring tools. Additionally, expanding the customization and creative capabilities of the AI Video Generator could further enrich its impact. A longitudinal study is also recommended to evaluate the system's sustained effectiveness, user adoption, and long-term contribution to institutional outcomes.

RECOMMENDED CITATION

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