

**A PROOF-OF-CONCEPT FOR AN AI-ENHANCED DOCUMENT
GOVERNANCE SYSTEM IN HIGHER EDUCATION: LEVERAGING
GOOGLE WORKSPACE FOR EDUCATION PLUS (GWS-E+)**

A Case Study of Swiss German University

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

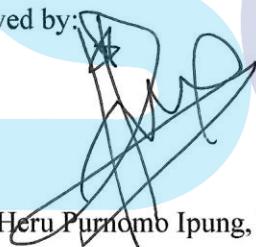


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ABSTRACT

A Proof-of-Concept for an AI-Enhanced Document Governance System in Higher Education: Leveraging Google Workspace for Education Plus (GWS-E+)

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This thesis addresses critical inefficiencies in document governance at Swiss German University (SGU), characterized by manual processes and compliance risks. Employing a Design Science Research (DSR) methodology, this study designed, developed, and evaluated an AI-enhanced governance system prototype. The architecture, guided by the TOGAF ADM, leverages SGU's existing Google Workspace infrastructure and integrates Google Cloud AI services (Vision, Vertex, Gemini) for intelligent automation.

The prototype's effectiveness was assessed through a mixed-methods evaluation. Expert validation confirmed the system's architectural soundness and robust alignment with ISO 15489/23081 and COBIT governance principles. User testing, while yielding a moderate SUS score of 55.6 due to methodological context, demonstrated transformative efficiency gains, reducing tasks from hours to minutes. The system achieved 94.7% classification accuracy, 100% reliability for automated alerts, and a 100% user intent to adopt, confirming its high perceived value.

The research concludes that the prototype is a feasible and effective solution, providing a validated, low-code model for other higher education institutions. It contributes a set of architectural, policy, and change management recommendations to guide the

successful implementation of AI-driven governance, bridging the gap between technical innovation and institutional compliance.

Keywords: Artificial Intelligence (AI), Document Governance, Design Science Research (DSR), Enterprise Architecture (TOGAF), IT Governance (COBIT, ISO), Higher Education, Google Workspace



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DEDICATION

This thesis is dedicated with all my love.

To my father, H. Ir. Yusman for his endless encouragement.

To my siblings, Vanda, Riana and Rendi for their unwavering support.

To my daughters, Via and Vira, for being my light.

And in loving memory of my mother, Hj. Yefrida Yusman, who continues to inspire
me.



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