

# Digital Transformation in Government Public Relations: A Strategic Information System Framework for Governance and Transparency in The Riau Provincial Government of Indonesia

Yelfi Vitriani<sup>1</sup>, Novriyanto<sup>2\*</sup>, Muhammad Irsyad<sup>3</sup>

<sup>1,2,3</sup>Universitas Islam Negeri Sultan Syarif Kasim Riau, Pekanbaru, Riau, Indonesia

**ABSTRACT:** The implementation of good governance in the digital era heavily relies on the strategic transformation of internal operations. This case study examines the planning of a public relations information database governance system at the Public Relations Bureau of the Riau Provincial Government Secretariat, which aims to address the inefficiencies in conventional workflows. Using the Ward and Peppard strategic planning framework, this study evaluates a project's alignment with e-government objectives. The findings reveal that manual processes such as media clipping and physical archives delay information delivery and limit the bureau's strategic role. The proposed information system, featuring user management, advanced search, and document digitization, provides a technological foundation for data-driven decision making and greater transparency. This initiative represents a shift from the basic stage of e-government maturity to a more interactive, citizen-oriented model. However, its long-term success depends on improving its technological literacy and maintaining cybersecurity. This study serves as a valuable reference for public sector institutions in developing countries seeking to modernize their public relations functions as a crucial step toward digital governance.

**KEYWORDS:** e-government, digital governance, public relations, information systems, strategic transformation.

## I. INTRODUCTION

### A. The Global Imperative for Digital Governance and Public Sector Innovation

In recent years, governments worldwide have progressively shifted from conventional administrative models to technology-driven, digital governance systems. This shift, often referred to as e-government, is a strategic response to growing demand for greater transparency, efficiency, and accountability in public services (Pilichowski, 2024). By leveraging information technology, governments can streamline internal processes, reduce bureaucracy, and empower citizens with greater access to services and information. According to the Organization for Economic Co-operation and Development (OECD), digital technology is not merely a tool for improving public sector efficiency, but a crucial strategic driver for making government "more open, transparent, innovative, participatory, and trustworthy" (Pilichowski, 2024). To realize the full benefits of the digital age, the public sector must be "digital by design" (Pilichowski, 2024), which means integrating technology and data into every aspect of the policy and service lifecycle.

### B. The Evolving Role of Public Relations in Digital Public Administration

The role of public relations (PR) in public administration has undergone radical changes in response to this wave of digital transformation. Historically, government PR operated as a "mouthpiece" of the government, relying on traditional media such as newspapers, radio, and television to disseminate information in a one-way manner. However, with the advent of the Internet and the PR 4.0, public relations have evolved into a multi-dimensional function

that leverages big data, artificial intelligence (AI), and the Internet of Things (IoT) to enhance quality and effectiveness (Pribadi & Nasution, 2021). Modern PR practitioners are required to transition from mere "broadcasters" to proficient content producers and publishers capable of analyzing public sentiment and effectively communicating information across various digital platforms (Pribadi & Nasution, 2021). Nevertheless, many government agencies still grapple with outdated workflows that are not aligned with the strategic potential of digital public relations.

### C. Riau Provincial Government Case Study

The Public Relations Bureau of the Riau Provincial Government Secretariat provides a valuable case study for analyzing this transition. The bureau faces a core problem common to many public sector organizations in developing countries: managing public relations data and media clippings in a conventional manner using only basic computer features. This manual process, which involves cutting, pasting, and physical archiving, is relatively time consuming and often leads to delays in the delivery of clippings to leadership. Furthermore, this traditional archiving method creates physical limitations in terms of the storage space. To address these operational and administrative issues, the Public Relations Bureau devised a strategic plan to implement a new public-relations information database governance system.

### D. Research Objectives

Based on this background, this study had three main objectives.

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1. Analyze the architecture and requirements of the proposed information system, as outlined in the strategic planning document.
2. To evaluate a project's planning and implementation approach against contemporary academic frameworks on digital governance and information systems.
3. To position the Riau case study within the broader context of public-sector digital transformation in developing countries and identify its implications for improving governance and transparency.

### **II. LITERATURE REVIEW**

#### **A. E-Government Maturity and Citizen-Centric Models**

E-government maturity models provide a conceptual roadmap for assessing and guiding digital transformation (Waara 2025). These models typically categorize e-government progress into several stages, the most common being the "publishing," "interacting," and "transacting" stages (Fath-Allah et al., 2014). The "publishing" stage is characterized by the basic, one-way provision of government information online, marking an initial shift from physical to digital services. The "interacting" stage introduces two-way communication, such as email and public feedback, while the "transacting" stage allows citizens to complete secure transactions, such as payments or registrations, online (Waara, 2025).

These models emphasize that successful e-government implementation relies on more than just technology; it also requires a citizen-centric framework that aims to enhance transparency, create public value, and build trust (Waara 2025). The successful adoption of e-government services is highly influenced by citizen trust in political and administrative systems (Waara, 2025). Projects that focus on internal efficiency, such as the Riau case, can be seen as a fundamental step in building infrastructure for progressing to higher maturity stages, where agencies can reallocate resources from manual tasks to external engagement and citizen-centric services.

#### **B. Public Relations in the Era of Digital Disruption**

The public relations profession has become a prime target for the era of technological disruption 4.0, which leverages big data, AI, and IoT to exponentially boost the quality and effectiveness of various PR functions (Pribadi & Nasution, 2021). These advancements have transformed traditional PR practitioners into "digital PR" practitioners (Pribadi & Nasution, 2021). Recent research suggests that AI can support and facilitate PR tasks, including writing articles and finding materials, automating repetitive work and freeing up practitioners to focus on more critical tasks (Pribadi & Nasution, 2021).

Although these tools are highly efficient, their adoption raises ethical concerns, particularly regarding transparency and accountability. Therefore, an ethical framework is needed to ensure the responsible use of AI, with emphasis on the necessity of human oversight to verify and refine AI-generated content (Pribadi & Nasution, 2021). This transformation shows that the modern PR function is highly strategic, and the digitalization of information and workflows is a prerequisite for leveraging these advanced tools for public sentiment analysis and personalized engagement.

#### **C. Strategic Planning for Information Systems in the Public Sector**

The implementation of information systems in the public sector often faces unique challenges such as resource constraints, lower technological literacy, and fragmented IT initiatives (Laita & Belaisaoui, 2017). To address these issues, the use of a strategic planning framework is crucial to ensure that technological investments align with broader organizational goals. The Ward and Peppard strategic planning model is one of the most prominent frameworks in this domain, providing a structured approach to building a digital strategy grounded in business and management languages.

Recent academic research has continued to use and validate the Ward and Peppard model, applying it to various public sector case studies, including hospitals and polytechnics, to design comprehensive strategic plans (Septiana et al., 2020). This framework helps organizations identify a portfolio of applications that can support their business objectives (Septiana et al., 2020). IT governance, as championed by frameworks such as COBIT, is also a critical component of successful public sector IT projects, as it ensures that leadership, organizational structures, and processes are aligned to manage risk and maximize value (Bimantoro & Jayadi, 2022). The use of these frameworks provides a more mature approach to project management that prioritizes strategic alignment over ad hoc technology adoption (Laita & Belaisaoui, 2017).

### **III. METHODOLOGY**

#### **A. Research Design**

This study adopts a qualitative single-case study approach and conducts an in-depth analysis of a strategic planning document from the Public Relations Bureau of the Riau Provincial Government Secretariat. This design allows for a detailed examination of the processes, challenges, and proposed solutions within the organization's specific context. By focusing on a single case, this study can provide a rich and contextual understanding of the phenomenon of digital transformation in the public sector.

#### **B. Data Sources**

The primary data for this study is the "Public Relations Information Database Governance" document, which serves as the main empirical source outlining the problems, requirements, and implementation strategy. Secondary data were obtained from an extensive literature review of academic and strategic publications from 2020 to 2025. These secondary data include the literature on e-government (Pilichowski, 2024), digital public relations (Pribadi & Nasution, 2021), IT governance (Laita & Belaisaoui, 2017), and strategic planning methodologies (Dana et al., 2025). The selection of these sources focused on reputable journals indexed in the Q1–Q3 rankings to ensure academic rigor.

#### **C. Data Analysis**

Data analysis was conducted using a qualitative approach guided by the Ward and Peppard strategic framework, which was also adopted by the source document. This process involved systematically extracting key data points from the case study document, identifying the core issues, and analyzing them against relevant themes from the literature review. This approach enabled a comprehensive

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evaluation of the project's internal alignment and external relevance within the broader academic discourse.

## IV.RESULTS

### A. Analysis of Conventional Workflow and Its Problems

The source document outlines the existing manual workflow at the Public Relations Bureau of the Riau Provincial Government Secretariat as a time-consuming and inefficient process. The workflow for creating media clippings involves searching for relevant news in print media, cutting, pasting it onto blank paper, and physically archiving it. Data and information management activities utilize only basic computer features.

The specific problems identified in this workflow are as follows:

1. **Difficulty in Long-Term Archiving:** Conventional archiving will make it difficult for users to access archives in the future.
2. **Time-Consuming Clipping Process:** The manual clipping process is relatively slow to complete.
3. **Delayed Delivery:** The Long completion times often cause clippings to be delivered to the leadership late.
4. **Space Constraints:** The old archiving method constantly faces physical space limitations.

These issues extend beyond operational inconveniences. The lack of a structured and searchable database hinders the bureau's ability to effectively analyze media sentiments, track public narratives, and provide timely feedback to leadership. This illustrates the fundamental inability of manual processes to meet the strategic demands of modern public relations. Table 1 summarizes the key problems of the conventional workflow that justify the digitalization initiative.

**Table 1. Key Problems in Conventional Public Relations Workflow**

| Aspect             | Problem                                       | Impact                                                              |
|--------------------|-----------------------------------------------|---------------------------------------------------------------------|
| Archive Management | Limited computer features and manual methods. | Difficulty in long-term data access and retrieval.                  |
| Clipping Process   | Time-consuming creation process.              | Delays in completion and delivery to leadership.                    |
| Physical Storage   | Archiving tied to physical space.             | Space constraints and not scalable over time.                       |
| Information Access | Limited access to a structured database.      | Inability to perform strategic analysis and provide quick feedback. |

### B. Proposed Information System and Architecture

To address these problems, this study proposes the implementation of a comprehensive information system. The architecture of this system is network-based and designed to be accessible to all users. This section outlines key functional and technical requirements.

#### i. Functional Requirements

The document outlines four main functional requirements for the proposed system:

1. **User Management:** The system must have the ability to manage user data, including adding and deactivating users, with access granted only to the administrator. The user roles must also be manageable.
2. **Information Retrieval:** The system will have a two-level search function, namely a "simple method" (with keywords) and a "complete method" (with identity variables such as title and category) to speed up news searches.
3. **Document Imaging:** The system must be able to convert printed documents into an electronic format (softcopy) using a scanner. Supported file formats include Word, JPEG, and PDF, with PDF being recommended for its ability to retain the original document image.
4. **Supporting Data:** The system must be able to generate lists that can be printed or exported for manual document management.

#### ii. Technical and Architectural Requirements

The main technical requirements of the proposed system were scalability and integration. The system adopts a web-based architecture that allows access via an intranet or the internet. Although the document mentions the concepts of a 3-tier architecture and web services, the technical description provided is more akin to a basic client-server model, where a central server manages the application and data storage, accessible by client computers. This discrepancy between conceptual and technical descriptions suggests that the detailed implementation may not have been fully conceptualized, which is a common challenge in public-sector IT projects. Table 2 summarizes the proposed functional and technical requirements.

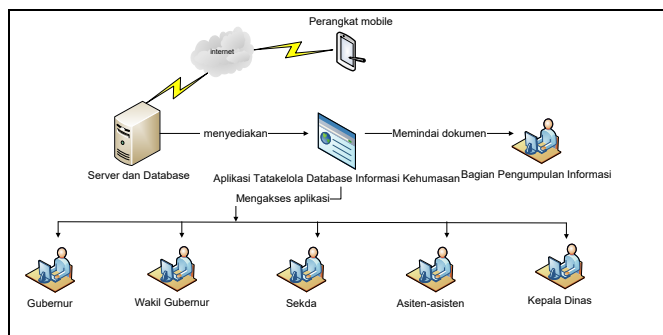
**Table 2. Functional and Technical Requirements for the Proposed System**

| Requirement Type | Key Feature            | Description                                                        |
|------------------|------------------------|--------------------------------------------------------------------|
| Functional       | User Management        | Adding/deactivating users and managing roles.                      |
|                  | Information Retrieval  | Quick search based on keywords and variables.                      |
|                  | Document Imaging       | Converting hardcopy documents to digital format (PDF, JPEG, etc.). |
|                  | Supporting Data        | Generating printable lists for manual document management.         |
| Technical        | Network Infrastructure | Requires a LAN or wireless network.                                |
|                  | System Scalability     | Designed for future growth and expansion.                          |
|                  | Integration            | Able to partially integrate with existing systems.                 |

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|  |              |                                                                  |
|--|--------------|------------------------------------------------------------------|
|  | Architecture | Uses a web-based client-server model.                            |
|  | Security     | Authentication, authorization, logging, and encryption settings. |

The software architecture to be developed by the Public Relations Bureau of the Riau Provincial Secretariat is shown in Figure 1.



**Figure 1 Recommendations for the Architecture of a Public Relations Information Database Application in the Public Relations Bureau of the Riau Provincial Secretariat**

### C. Strategic Implementation Plan

The implementation plan adopts Ward and Peppard's methodology, which consists of four stages: preparation and data collection, organizational environment analysis, needs analysis, and implementation strategy. The plan also includes detailed recommendations for hardware and software, including the roles of human resources, such as database administrators and system analysts. The document concludes with a project cost estimate, indicating the organization's commitment to investing in necessary resources.

## V. DISCUSSION

### A. From Conventional to Digital: Aligned with E-Government Goals

The proposed database system is a significant and strategic step for the Riau Provincial Public Relations Bureau during its digital transformation journey. The project directly addresses fundamental administrative and operational problems. Moreover, this initiative is highly aligned with broader e-government objectives, such as improving efficiency, transparency, and public services (Pilichowski, 2024).

By mapping this project to e-government maturity models, it can be seen that the initiative effectively moves the bureau from a basic "publishing" stage towards an "interacting" stage (Waara, 2025). By digitizing clippings and creating a centralized database, the bureau builds the foundation for unprecedented transparency (Sundgren, 2005). The system allows for faster and more structured data processing, which ultimately facilitates "data-driven decision-making" (Dennis, 2025) for leadership. This greater information regularity and availability enable the bureau to develop more responsive and effective communication strategies, a prerequisite for deeper public engagement in the future.

### B. The Role of Strategic Frameworks in Public Sector IT

One of the most significant aspects of this case study is the explicit adoption of the Ward and Peppard strategic planning model (Septiana et al. 2020). The use of this prominent academic framework distinguishes the project from common public-sector IT initiatives, which are often characterized by fragmented and ad hoc projects (Laita & Belaissaoui, 2017). This demonstrates a level of maturity in the Public Relations Bureau's approach to IT management, which prioritizes the alignment of technology with organizational goals (Bimantoro & Jayadi, 2022).

This project serves as a tangible example of IT governance. The structured workflow, identification of specific roles (Database Administrator, System Analyst), and establishment of Standard Operating Procedures (SOPs) show a commitment to governance principles that ensure IT support strategy and deliver value (Bimantoro & Jayadi, 2022). This strongly demonstrates that careful planning, not just the technology itself, is the most critical factor for the success of IT projects in the public sector, reaffirming findings from academic literature.

### C. Future Challenges and Implications

Although the proposed framework is comprehensive, there are implicit challenges to its implementation. While the document mentions the need for qualified human resources, the broader literature suggests that low digital literacy and resistance to change can be significant barriers to public-sector technology adoption (Lutsenko, 2024). A successful implementation plan must include continuous training programs and strong change management strategies to ensure that the staff have the skills and motivation to use the new system.

Furthermore, when security requirements are mentioned, it is important to emphasize the continuous nature of risk management. A digitized system is far more vulnerable to cyber-attacks than a physical archive. Therefore, a robust cybersecurity strategy, including intrusion detection and a comprehensive disaster recovery plan, is critical for protecting public data (Bimantoro and Jayadi, 2022).

Looking ahead, the foundation of this project paves the way for the adoption of more advanced technologies. The structured data generated by the system can become the basis for big data and AI-based public sentiment analysis (Pribadi and Nasution, 2021). By automating basic tasks, public relations staff can shift their focus from manual clipping to strategic media analysis and proactive public engagement (Yadav et al. 2025). This will position the Riau Public Relations Bureau not only as an efficient information administrator, but also as a strategic intelligence function that can provide invaluable insights into leadership.

## VI. CONCLUSION

Strategic planning for the Public Relations Information Database Governance by the Riau Provincial Government is a commendable and well-structured initiative to address long-standing administrative inefficiency. By explicitly adopting Ward and Peppard's strategic planning methodology, the project demonstrates a commitment to IT governance best practices and strategic alignment. By providing a digital solution for manual clipping and

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archiving processes, the system not only improves efficiency, but also lays the technological foundation for enhanced transparency and data-driven decision-making. This case study provides a valuable example for public-sector agencies in developing countries, showing how a careful strategic planning framework can be a catalyst for successful digital transformation. The project's future

success depends on overcoming critical implementation challenges, including human resource development and continuous maintenance of cybersecurity. Further research evaluating the post-implementation impact on operational efficiency and the bureau's public relations effectiveness will enrich our understanding of this framework.

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