

# The public communication strategy of the Yogyakarta city government in disseminating information through the Jogja smart service application

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## Abstract

This study examines how the Yogyakarta City Communication, Informatics, and Coding Agency manages the Jogja Smart Service (JSS) application as a medium for disseminating public service information in 2024. Using a qualitative descriptive method through interviews, observation, and documentation, the study finds that JSS has been effectively managed through push notifications, interactive features, messaging services, and real-time content that supports creative and consistent public communication. Its effectiveness is strengthened by targeted content strategies, continuous evaluation, adaptation to digital trends, and collaboration with external parties despite limitations in human resources and budget. The findings show that JSS supports good digital governance by promoting transparency, accountability, public participation, government responsiveness, and digital literacy in Yogyakarta City.

## Keywords

Mobile application, Government innovation, Jogja smart service, Smart city, Digital literacy

## Introduction

The development of the digital era has brought significant changes in various aspects of life, including government administration. Information and communication technology (ICT) has become an important component in supporting social development because it is considered effective in improving the efficiency and effectiveness of public services [1]. Digital transformation in government has not only changed manual processes to electronic ones, but also changed the paradigm of public services to be faster, more transparent, and more accountable. The implementation of e-government has become a major focus for various countries, including Indonesia, as mandated in Presidential Instruction No. 3 of 2003 concerning the implementation of electronic government [2].

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The main objectives of e-government implementation are to improve internal efficiency, provide public services, and strengthen democratic governance processes.

The digital era requires local governments to think creatively by utilizing available resources to create e-government-based innovations for the welfare of the region. The government needs to introduce ICT-based public service innovations as an effective strategy to respond to the complex needs of modern society [3]. The smart city concept developed in Yogyakarta is one such effort, aiming to create a humanistic, productive, and digitally literate socio-technical ecosystem [4], [5]. Through the development of online service systems, such as digital identity and queuing, the government is striving to deliver efficient governance that is adaptive to the needs of the community.

The Yogyakarta City Government realized this commitment by launching the Jogja Smart Service (JSS) application in 2018 as the main platform for digital public services. This application makes it easier for the public to access various government services through a single integrated system [6], [7]. Various institutions, such as the Indonesian Red Cross, the Indonesian National Police, and the National Zakat Agency, collaborated in the development of JSS to strengthen comprehensive public services [4]. JSS was born as a form of digital innovation in response to the Covid-19 pandemic with an Agile Governance approach that emphasizes speed, adaptability, and continuous improvement [8]. The successful recognition of JSS as the Top 45 Commendable Public Service Innovation KIPP Award 2023 from the Ministry of Administrative and Bureaucratic Reform, ranking 10th, demonstrates the government's achievement in enhancing service quality through digital strategies [1].

However, the aspect of digital communication strategy in disseminating information about government programs and innovations through JSS has not been studied comprehensively. Previous research has shown that citizens' readiness to use JSS is influenced by infrastructure and ICT usage patterns, while regulatory factors, human resources, and trust have not yet had a significant impact [9]. Interaction between the government and the community through JSS is quite effective, with user enthusiasm reaching more than 60%, although service coverage is not yet evenly distributed throughout the DIY region [10]. Technical obstacles persist, such as upload size limitations, login errors, and attendance system disruptions. These findings indicate that while JSS has achieved operational success, its potential as a strategic communication medium between government and community remains underexplored.

This research addresses this gap through a holistic approach analyzing the public communication strategy of Yogyakarta City Government from upstream (audience analysis and message design) to downstream (platform evaluation and impact assessment). By examining JSS as both administrative tool and communication platform, this study contributes to digital government communication theory in the Indonesian context. The research emphasizes offline–online integration and storytelling as critical mechanisms that increase public participation and improve information dissemination effectiveness within integrated public service applications like JSS. This

approach enriches theoretical understanding of digital government communication while providing practical insights for local governments in Indonesia seeking to optimize their digital public service platforms.

The primary contribution of this research is to present an empirical framework integrating communication analysis from audience identification through platform evaluation, combined with storytelling practices bridging offline–online channels. This framework demonstrates that offline–online integration and strategic storytelling serve as critical mechanisms for enhancing public participation and information dissemination effectiveness in integrated public service applications such as JSS, thereby advancing digital government communication theory in the Indonesian context.

## Method

This study employed a descriptive qualitative approach to examine the digital public communication strategy of the Dinas Komunikasi, Informatika, dan Persandian Kota Yogyakarta in disseminating government program and innovation information through the Jogja Smart Service application. The research was conducted at the DISKOMINFOSAN Office of Yogyakarta City for six months (January–June 2024).

The study involved 18 informants to ensure methodological transparency and clarity. They consisted of:

1. Seven officials from DISKOMINFOSAN Yogyakarta City, including the Head of Department, Heads of Communication Divisions, and Social Media Managers.
2. Seven members of the Information Dissemination Team (Tim Diseminasi Informasi/TDI), comprising two field coordinators, two community facilitators, two application technicians, and one documenter.
3. Four active JSS users from varied demographic backgrounds (age, occupation, and level of digital literacy).

The inclusion of these categories allowed the researcher to obtain perspectives from policy makers, technical implementers, and end users of the application. Data were collected using three techniques: semi-structured in-depth interviews, non-participant observation, and documentation study.

Non-participant observation was conducted over four months (February–May 2024). The researcher positioned herself as an external observer and did not engage in operational activities or decision-making processes. The observation focused on documenting communication practices, content workflows, feature utilization, and user–application interactions within JSS. Field notes, screenshots, and multimedia documentation were systematically recorded to complement interview data and official documents. This approach enabled objective documentation of JSS’s communicative practices without direct intervention in DISKOMINFOSAN’s operational processes. Documentation study involved collecting and reviewing strategic communication plans,

JSS development reports, user analytics data, internal guidelines, and relevant policy documents issued by DISKOMINFOSAN. These documents provided contextual and structural insights into the institutional communication strategy.

Data analysis followed the interactive model of Miles and Huberman, which consists of data reduction, data display, and conclusion drawing conducted simultaneously. Interview transcripts and observational field notes were coded and categorized based on emerging themes related to communication strategy components, such as message design, channel selection, audience segmentation, content management, and feedback mechanisms. The coded data were then organized into matrices and narrative summaries to identify patterns and relationships across data sources. To ensure validity, the study applied source triangulation by comparing information from DISKOMINFOSAN officials, TDI members, and JSS users; method triangulation by cross-checking interview findings with observational records and documentary evidence; and member checking by sharing preliminary interpretations with selected informants to confirm the accuracy of representation and analysis.

## Results and discussion

### Results

#### 1. Audience and situation analysis

The digital communication strategy implemented by the Yogyakarta City Communication, Informatics, and Coding Agency (DISKOMINFOSAN) in developing the Jogja Smart Service (JSS) application began with a comprehensive analysis of the situation and audience characteristics. With a population of around 415-417 thousand people, 230 thousand or 55 percent of the community have become JSS users. This **Figure 1** reflects a positive achievement, but there are still 45 percent of the population who do not actively use the application. Demographic complexity, education levels, and job variations are important factors in determining an inclusive communication strategy. Through perception surveys conducted twice a year, DISKOMINFOSAN has successfully mapped active and inactive user groups, while also understanding the digital divide between people with high technological literacy and those with limited technological understanding.

The elderly, those with low levels of education, and those working in the informal sector have been found to have low adoption rates of JSS. To bridge this gap, DISKOMINFOSAN has implemented an adaptive communication strategy that combines digital and face-to-face approaches to ensure that information is conveyed effectively. Social factors such as limited device capacity and concerns about data security are additional obstacles to the acceptance of the application. In response, the public communication team provides education on data security and service convenience, while also utilizing the role of students to disseminate information

through word-of-mouth, which expands the reach of socialization among the urban community in Yogyakarta.

## 2. Setting objectives and determining targets

The objectives of JSS digital communication are arranged hierarchically in three stages, namely increasing public awareness of the application's existence, building understanding of its benefits, and encouraging concrete action in the form of active use of the application. DISKOMINFOSAN focuses on delivering information that is easy to understand, accurate, and relevant to the context of community needs. However, research findings indicate that the mechanism for evaluating communication effectiveness has not been fully standardized, so that the measurement of communication success still depends on simple indicators such as the number of users and the download rate of the application.

The strategy to achieve public communication objectives is carried out through the Information Dissemination Team (TDI), which consists of seven non-civil servants, comprising two field coordinators, two community facilitators, two application technical assistants, and one documenter who actively conducts outreach at various community levels, from the neighborhood association (RT) and family welfare movement (PKK) groups to sub-district events. Through these outreach activities, the community is introduced to how to use the Jogja Smart Service (JSS) application, its practical benefits in improving access to public services, and data security procedures based on NIK (Population Registration Number). This direct communication approach has proven effective in reaching segments of the community with low digital literacy because it is accompanied by direct assistance, easy-to-understand visual guides, and interactive question and answer sessions that respond to community concerns. Face-to-face interaction allows the Information Dissemination Team to provide explanations tailored to the local context and specific needs of each community, making the communication message more relevant and easier for the target audience to accept.

## 3. Content and messaging strategy

JSS's content strategy reflects a shift in the communication paradigm from a bureaucratic style to one that is communicative and engaging, emphasizing visual, narrative, and multimedia elements. A storytelling approach is used to transform technical messages into information that is easier for the public to understand. Content that was originally in the form of formal news is now creatively packaged in graphic formats, short videos, and animations to increase user engagement on various digital platforms. Content is tailored to the characteristics of each social media platform. Instagram is used for visual content with informative carousel designs, TikTok for short videos with music and a casual style, while Facebook and X are used for in-depth information delivery and the latest policy updates. This approach demonstrates an understanding of the different preferences of digital

audiences. In addition, a one-stop service system and a single data concept are implemented to ensure the accuracy and consistency of information disseminated through various channels.



Figure 1. Example of X content

In addition, user testimonials are integrated as part of the content storytelling, utilizing real experiences to strengthen credibility. These testimonials are distributed in short video formats and WhatsApp community groups, making them more relevant and persuasive than official government messages. A feedback mechanism is integrated into the system through Jessica, an AI-powered chatbot embedded in JSS, which allows citizens to submit complaints, questions, and suggestions directly. Insights from this feedback are used to refine content and user experience before launching new features.

#### 4. Digital platforms and communication channels

The selection of digital platforms is an important aspect of effective public communication. DISKOMINFOSAN uses a combination of various social media (Instagram, Facebook, X, and TikTok) and the JSS application as the main channels for two-way communication between the government and the public. JSS not only functions as a medium for disseminating information, but also as an integrated public service platform. The chatbot feature and human customer service provided in the application facilitate interaction and increase the speed of response to community needs.

The JSS application is designed with simple and familiar user experience (UX) principles, resembling the appearance of popular chat applications such as WhatsApp, making it easy to operate even for users with low digital literacy shown in Figure 2. This approach reflects the concept of digital inclusivity, which ensures equal access for all levels of society. The integration of a single ID, single sign-on, and single window system improves efficiency and reduces data duplication between services, ultimately strengthening public trust in the performance of digital government.

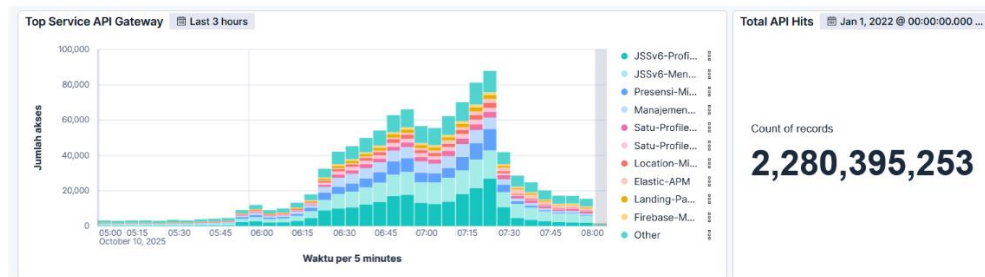


Figure 2. JSS API gateway usage pattern in the last 3 hours

User responses indicate that the JSS application is considered easy to use, fast, and rarely experiences technical glitches. This reliability is an important factor in maintaining the government's credibility as a modern and responsive digital service provider. High usage data, especially during productive hours, shows that JSS has become part of the digital routine of the people of Yogyakarta and contributes significantly to realizing transparent and efficient technology-based governance.

### Discussion

Research findings show that the Yogyakarta City Communication and Information Agency has conducted in-depth audience and situation analysis in designing a digital communication strategy through the Jogja Smart Service (JSS) application. This strategy combines technology, content, and interaction to create a meaningful communication experience for the audience. With a population of around 415,000–417,000 and a JSS user penetration rate of 55 percent, Diskominfo demonstrates an understanding of the demographic diversity of the community. The analysis was conducted through biannual perception surveys to map active and inactive users and identify digital gaps. The main challenge arises from groups with low technological literacy, including the elderly and informal sector workers. A combination of digital and face-to-face approaches (offline-to-online integration) is applied so that information can be conveyed inclusively, in accordance with Presidential Instruction No. 9 of 2015 [11].

The JSS digital communication objectives are set hierarchically through three stages: awareness, understanding, and action, reflecting the concepts of awareness, engagement, and action. The awareness stage focuses on introducing the application, the understanding stage emphasizes interaction, and the action stage encourages active adoption of digital services. The evaluation of communication effectiveness still uses simple quantitative indicators, such as the number of users and application downloads, so it is necessary to develop more comprehensive metrics, including qualitative aspects such as public satisfaction and trust. The Information Dissemination Team (TDI) plays an important role through direct socialization in the community and the use of storytelling to build emotional closeness with the community. This is in line with the concept of digital service quality, which emphasizes reliability, ease of use, and efficiency as factors that influence user satisfaction [15].

Diskominfo's content strategy has shifted from formal to communicative and engaging, using graphics, short videos, animations, and infographics tailored to the

characteristics of digital platforms such as Instagram, TikTok, Facebook, and X. The integration of a one-stop service system and single data ensures information accuracy and avoids duplication, in accordance with Presidential Instruction No. 9 of 2015. User testimonials in short video format reinforce the credibility of the message, while an AI chatbot named Jessica supports two-way service and user feedback collection. The use of a multi-channel approach and simple, inclusive application design ensures easy access for the entire community. JSS API Gateway data shows an average of 90,000 accesses per five minutes, indicating that JSS has become part of the public's digital routine and strengthens transparent and participatory governance. A stable, responsive application that is integrated with various public services will encourage the public to continue using it repeatedly [12].

Public service applications should not only function as information centers, but must also be able to build long-term relationships with users through open two-way communication [13]. The use of technologies such as chatbots, public aspiration features, and multi-platform integration allows the public to not only receive information, but also provide input and engage in the service process. From the perspective of participatory communication theory, this pattern strengthens the position of the public as actors who play a role in shaping the quality of services, rather than merely being recipients [15]. Thus, effective public communication strategies in government digital services must combine technology, social interaction, and citizen participation in a balanced manner in order to increase trust and strengthen responsive governance.

In the context of JSS, the community uses applications not only to access public services, but also to fulfill their needs for information, participation, and self-empowerment. The offline-to-online integration approach implemented by Diskominfo is in line with transmedia literacy, where audiences navigate information through various platforms and different touchpoints. The Information Dissemination Team acts as agents of change who facilitate the movement of audiences from passive users to active users, a process that is consistent with the Engagement Ladder model, which emphasizes the importance of meaningful interaction in building public trust in government institutions. These empirical findings extend digital government communication theory in the Indonesian context by demonstrating how offline–online integration and strategic storytelling operate as enabling mechanisms that increase public participation and improve the effectiveness of information dissemination within integrated public service applications such as JSS.

## Conclusion

This study shows that the Yogyakarta City Communication, Informatics, and Coding Agency (Diskominfo) has successfully developed an integrated digital communication strategy through the Jogja Smart Service (JSS) application to disseminate information on government programs and innovations. The strategy

includes audience analysis, tiered goal setting, adaptive storytelling and multimedia-based content, and the use of inclusive multi-channel communication. With more than 230,000 active users, this strategy has proven effective in increasing the adoption of government digital services. Although there are still challenges such as the digital literacy gap, limited human resources, and unstandardized evaluation, this strategy has strengthened the Yogyakarta Smart City ecosystem. In the future, it is necessary to develop a measurable evaluation system and increase human resource capacity through professional training so that the effectiveness of JSS digital communication can continue to be improved.

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