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Design and Implementation of UI/UX for the SPINTAR Website (One-Stop Information and Consultation Service) at the Central Bureau of Statistics of Sukabumi City

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Abstract

The development of digital public services requires government institutions to provide information systems that are accessible, efficient, and responsive to community needs. One important factor influencing the quality of digital services is the implementation of effective user interface (UI) and user experience (UX) design. This community engagement program was conducted at the Central Bureau of Statistics (BPS) of Sukabumi City and focused on the implementation of UI/UX design for the SPINTAR website (Integrated Information and Consultation Service). The program aimed to improve the usability and accessibility of digital statistical information and online consultation services for the public. The methods applied included user needs analysis, wireframe development, visual interface design, interactive prototyping using Figma, and coordination with the development team to support design implementation. A user-centered design approach was adopted to ensure ease of navigation, visual consistency, and accessibility in public digital services. The results show that the implementation of structured UI/UX design improved information clarity, navigation efficiency, and overall user experience of the SPINTAR website. This program contributed to enhancing the quality of digital public services at BPS Sukabumi City and demonstrated the practical role of UI/UX design in supporting community-oriented information systems.

Keywords : *UI/UX Design, Digital Public Services, Community Engagement, SPINTAR Website, User-Centered Design*

Introduction

The rapid development of digital transformation has significantly influenced the way public institutions deliver information and services to society. In the era of digital transformation, the role of information and communication technology (ICT) has become increasingly important, particularly in the delivery of effective, efficient, and accessible public services.

Companies are employing new information and communication technologies (ICT) to deliver services and engage users in decision-making to ensure their system's success (Aldrees, 2023). Along with this development, electronic administrative processes streamline traditional operations, reducing costs associated with outdated manual practices and contributing to the development of a more efficient, transparent, and customer-centric administrative ecosystem (Ilieva, 2024). These conditions indicate that digital transformation in public administration is expected to improve service quality and public engagement.

However, challenges in digital public service implementation remain significant in Indonesia. Despite the increasing availability of digital public services in Indonesia, the level of adoption and active usage by citizens, especially in regional areas such as East Kalimantan, remains relatively low, largely due to the lack of attention to user experience (UX) and user interface (UI) aspects in system design (Mundzir, 2023). This situation reflects that many e-government systems are developed with a stronger focus on technology than on usability and user needs.

Previous studies emphasize that system design plays a critical role in encouraging public participation. In the G2C website, usability and credibility are both necessary conditions to improve the quality of public services (Cheng et al., 2021). Conversely, this disconnect often stems from a lack of citizen-centric approaches, where the focus is primarily on technological innovation rather than understanding and addressing user needs (Prasetyo, 2024) As a result, digital public service platforms may fail to achieve optimal utilization and public trust.

At the local level, service delivery challenges are also evident, where this phenomenon causes citizens to be reluctant to submit aspirations and complaints (Agustyar, 2023). Lengthy and formal procedures can discourage public participation, highlighting the need for digital public service systems that are not only functional but also user-friendly, accessible, and responsive to citizens' needs.

Badan Pusat Statistik (BPS) Kota Sukabumi is a government institution that plays a strategic role in providing accurate, relevant, and reliable statistical information to the public. To improve information dissemination and consultation services, BPS Kota Sukabumi developed the SPINTAR website (Satu Pintu Informasi dan Konsultasi) as an integrated digital platform. Therefore, this study aims to design and implement a UI/UX model for the SPINTAR website using a user-centered approach to improve usability, accessibility, and user satisfaction. The expected outcome of this research is a user-friendly and effective public service website that supports optimal access to statistical information and consultation services.

Method

Research Design

This study employed a qualitative descriptive approach as part of a community engagement program conducted at the Central Bureau of Statistics (BPS) of Sukabumi City. The activity focused on the design and implementation of User Interface (UI) and User Experience (UI/UX) for the SPINTAR (Satu Pintu Informasi dan Konsultasi) website. A User-Centered Design (UCD) approach was adopted to ensure that the developed interface aligned with user needs, service workflows, and public service objectives(Mundzir, 2024). This approach emphasizes active stakeholder involvement throughout the design and validation process(Picardi & Caruso, 2024).

Location and Duration

The program was conducted at BPS Kota Sukabumi from July to December 2025. The implementation applied a hybrid working scheme

combining Work From Office (WFO) and Work From Home (WFH) to facilitate coordination, interface development, and evaluation activities.

Participants and Stakeholders

The participants involved in this activity consisted of internal stakeholders at BPS Kota Sukabumi, including staff responsible for managing statistical information and digital consultation services. These stakeholders contributed to the needs analysis process, interface validation, and feedback evaluation to ensure that the system design met institutional requirements and user expectations.

Data Collection Techniques

Data collection was carried out through direct observation, informal interviews, and documentation during the internship and design activities. Observations were conducted to understand service workflows and identify usability issues in the existing system. Informal discussions with stakeholders were undertaken to gather insights regarding functional requirements and system constraints. Documentation included user flow diagrams, wireframes, visual design assets, and interactive prototypes produced throughout the design process.

UI/UX Design Procedure

The UI/UX design process was conducted through several structured stages. Initially, user needs analysis was performed to identify functional requirements and usability challenges within the existing website. Based on the findings, wireframes and user flows were developed to define the information architecture and navigation structure. The next stage involved visual interface design, which emphasized clarity of information, visual consistency, accessibility, and intuitive interaction. Interactive prototypes were then created using Figma to simulate user interaction and allow stakeholders to evaluate the design before implementation(Muktamar et al., 2023). Finally, coordination with the development team was conducted to support the technical implementation of the finalized interface design.

Data Analysis

Qualitative data were analyzed descriptively to evaluate the effectiveness of the implemented UI/UX design in improving navigation clarity, information accessibility, and overall user experience. Stakeholder feedback was examined to identify areas requiring refinement, and iterative improvements were made accordingly to ensure that the final design met usability standards and public service objectives (Rilwanu, 2023).

Results and Discussion

The implementation of the UI/UX design process for the SPINTAR website at Badan Pusat Statistik Kota Sukabumi produced meaningful outcomes in improving the usability and accessibility of the public service platform(Lestari & Wijaya, 2022). Direct observations throughout the design and evaluation stages indicated that the redesigned interface enabled users to navigate statistical information and consultation features more easily. Users demonstrated increased confidence and efficiency when interacting with the website, particularly in locating information and understanding the system flow(Permana et al., 2023).

A key finding of this study is the improvement in overall user experience resulting from the application of user-centered UI/UX principles(Alfarizi & Sari, 2021). The redesign addressed major usability issues identified in the initial interface, including unclear navigation paths, inconsistent visual hierarchy, and dense information presentation. After the implementation of the redesigned interface, users were able to complete tasks more effectively and reported greater comfort when accessing statistical data and consultation services. This improvement reflects the successful alignment between interface design and user needs.

These findings directly answer the central research question of this study, namely how user-centered UI/UX design can enhance usability in public service websites. The results demonstrate that involving users in the design process and prioritizing usability considerations lead to a more intuitive and

user-friendly interface(Rahman & Prabowo, 2024). The design approach adopted in this study emphasizes clarity, consistency, and accessibility, which are critical factors in public service digital platforms.

Furthermore, the results suggest that UI/UX improvements cannot be achieved solely through visual enhancement. Contextual understanding of user behavior and interaction patterns plays a crucial role in producing effective design solutions. The integration of usability evaluation within the design process allowed design decisions to be validated and refined based on actual user interaction, resulting in a more reliable and user-oriented interface(Hidayat et al., 2020).

From a broader perspective, these findings are consistent with previous studies that highlight the effectiveness of user-centered design approaches in improving the usability of government websites. However, this study contributes to the existing body of knowledge by applying these principles specifically to a statistical information and consultation platform, which presents unique challenges related to information density and data comprehension. The results indicate that user-centered UI/UX frameworks can be effectively adapted to specialized public service websites with complex information structures.

Overall, the findings confirm that a focused UI/UX design approach significantly enhances the quality of user interaction in public service websites. The SPINTAR website redesign demonstrates that usability-oriented UI/UX implementation is a critical factor in ensuring that digital public services are accessible, understandable, and responsive to user needs.

1) Homepage Interface

The homepage represents the initial interface accessed by users. In the UI/UX design of the SPINTAR website, the homepage was developed to present essential information in a concise and structured layout, including service menus, statistical information, and direct access to online consultation services. The visual elements were arranged in a simple and intuitive manner

to help users easily understand the website's functions upon first use and to enhance overall navigation efficiency.

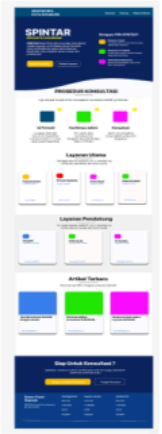

Figure 1. Homepage Interface

2) Public Consultation Form Interface

The public consultation form serves as the primary channel for the public to submit questions or requests for statistical consultation. The form was designed with a simple layout and clearly labeled input fields to ensure that users can complete the form without difficulty. This design aims to improve user convenience and support effective utilization of online consultation.

Figure 2. Public Consultation Form Interface

3) System Dashboard Interface

After users submit the public consultation form, the system displays a dashboard as an interface to monitor consultation status and related information. The dashboard was designed with a concise and informative layout, allowing users to easily track the progress and follow-up stages of their submitted consultation requests.

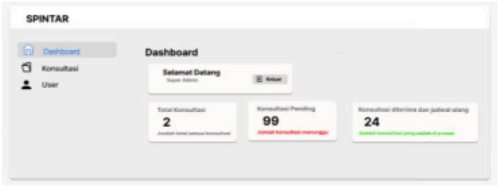

Figure 3. System Dashboard Interface

4) User Data Form Interface

The user data form is used to collect and complete user information required in the consultation process. The interface was designed with clear labels, easy-to-complete input fields, and consistent visual

elements aligned with other system pages. This design aims to minimize data entry errors and improve overall usability.

Figure 4. User Data Form Interface

5) User Consultation Data Management Interface

This interface is used to manage consultation data submitted by users. The system provides data management features that support administrative processes, allowing consultation records to be handled in a systematic and well-structured manner to ensure efficiency and data consistency.

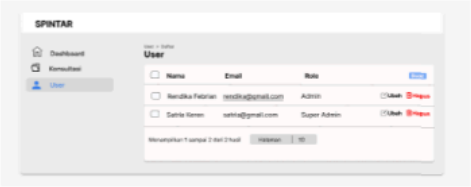

Figure 5. User Consultation Data Management Interface

6) Consultation Admin Dashboard Interface

The consultation admin dashboard was designed to assist administrators in monitoring all incoming consultation requests. Information is presented in a concise and structured manner, enabling administrators to perform follow-up actions efficiently and effectively.

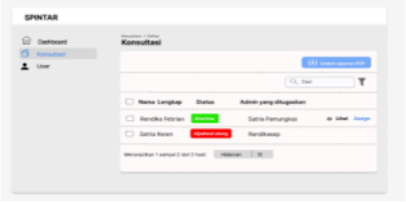

Figure 6. Consultation Admin Dashboard Interface

7) Admin Consultation Response Form Interface

The admin consultation form is used to provide responses to consultation requests submitted by users. The interface was designed with a simple and clear layout to enable administrators to deliver responses quickly and accurately.

Figure 7. Admin Consultation Response Form Interface

8) Admin Assignment Interface by Super Admin

This interface is used by the super admin to manage and assign administrators responsible for handling statistical consultation services. The interface was designed to be user-friendly, enabling efficient administration and management of admin accounts.

Figure 8. Admin Assignment Interface by Super Admin

Conclusion

The community engagement program conducted at the Central Bureau of Statistics (BPS) of Sukabumi City successfully achieved its primary objective

of improving the quality of digital public services through the implementation of structured UI/UX design on the SPINTAR website. By applying a user-centered design approach, the program enhanced interface clarity, navigation efficiency, and accessibility of statistical information and online consultation services for the public.

The results indicate that systematic UI/UX design practices, including user needs analysis, wireframe development, interactive prototyping, and coordination with the development team, play a significant role in improving user experience in public service websites. The implementation demonstrated that practical and contextual design activities are more effective than purely theoretical approaches in supporting the usability of digital government platforms.

This program contributes to the development of digital public service design practices, particularly in the context of government statistical information systems, which remain underexplored in community engagement studies. The findings emphasize the importance of integrating usability, accessibility, and visual consistency principles to ensure inclusive and user-friendly public services.

In the future, similar programs may be replicated and expanded to other government institutions by adapting the design process to specific user characteristics and service needs. Further development may focus on integrating usability evaluation methods, such as formal user testing or usability scoring, to strengthen the impact assessment of UI/UX implementation. Collaboration between government institutions, academic institutions, and technology practitioners is essential to sustaining the development of effective and user-oriented digital public services.

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