

Implementing Rapid Application Development (RAD) for Statistical Analysis of Tourism and Travel Vlog Content

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Abstract—Technological developments have sparked creativity through innovation in tourism marketing strategies through various video content. There have not been many studies that use video statistical data as a reference to create other creative content and identify opportunities to increase viewers and subscribers to access a broader range of system users. This research offers ideas for designing Tourism and Travel Vlog Content Statistical Analysis using the Rapid Application Development (RAD) approach. The stages in the RAD method consist of the requirements planning stage, user design stage, construction stage, and cutover stage. This study's results show that user needs identification shows the need for Author Channel data, statistics, and relation patterns that can be used in Social Network Analysis (SNA). At the user design stage, the dashboard design creates a page where images or background videos are taken in content to SNA and Chain Network pages. In the construction stage, design is carried out according to the use case diagram to manage data and make data as helpful information in identifying publication opportunities so that the video rating made is by tourist preferences so that it can trigger intentions to visit tourist sites. At the cutover stage, testing the features and functions of the application is carried out; the test results show that all pages can be accessed without any problems. Thus, this application can analyze statistical data of content published on various platforms. This application generally benefits content creators who consider statistical information in addition to popular content design.

Keywords: RAD; SNA; Tourism; Travel Vlog; Content

1. INTRODUCTION

Tourism content analysis is pivotal in shaping effective digital marketing strategies for the tourism industry. The primary objective of such analysis is to scrutinize and evaluate the content disseminated across various digital platforms, ranging from social media to dedicated travel websites [1]. Through this process, marketers can gauge the impact and resonance of their promotional content among target audiences [2]. Additionally, content analysis aids in identifying key trends, preferences, and sentiments expressed by potential travelers, providing valuable insights for crafting tailored marketing campaigns [3]. Leveraging data-driven content analysis enhances the relevance of marketing efforts and contributes to a more personalized and engaging customer experience [4]. Integrating tourism content analysis into digital marketing strategies is imperative for the industry's sustainable growth, ensuring that promotional efforts align with the evolving preferences of the contemporary traveler.

This research aims to design a video content analysis system specifically tailored for travel vlogs to generate content that aligns with the principles of story comic tourism. The primary focus is developing a robust framework capable of extracting meaningful insights from travel vlogs, considering elements such as narrative structure, visual aesthetics, and audience engagement [5].

Through this system, content creators and marketers can better understand the storytelling dynamics within the travel vlogging genre, allowing for the creation of more compelling and immersive narratives that resonate with the evolving preferences of contemporary audiences [6]. Integrating such an analytical tool into the content creation process enhances the quality of travel vlogs [7]. It contributes to the broader narrative of story comic tourism, fostering a deeper connection between viewers and the travel experiences depicted in [8]. In conclusion, the proposed system could revolutionize content creation in the travel vlogging domain, aligning it more closely with the narrative principles of storynomic tourism.

The emergence of travel vlog content has significantly transformed the landscape of tourism marketing strategies, proving to be a more effective catalyst in eliciting the intent to travel. The primary assertion lies in the immersive and visually captivating nature of travel vlogs, which engage audiences in real-time experiences and provide a firsthand glimpse into diverse destinations [9]. These dynamic and personalized narratives capture attention and foster a sense of connection and aspiration among viewers [10]. The shift towards leveraging travel vlogs in marketing endeavors reflects a strategic recognition of the contemporary traveler's inclination towards experiential and authentic content [11]. In conclusion, using travel vlog content marks a paradigm shift in tourism marketing, harnessing the potential to evoke genuine travel intentions by offering compelling, relatable, and immersive storytelling experiences.

The crafting of effective tourism marketing content faces formidable challenges in cultivating an eco-destination image, fostering place attachment, and ultimately influencing behavioral intentions to travel. Field's primary Field is balancing promotional messaging with the authentic representation of eco-friendly destinations



[12]. Achieving this delicate equilibrium is crucial for shaping a positive and sustainable image that resonates with environmentally-conscious travelers [13]. Additionally, establishing a meaningful place attachment through content necessitates a nuanced understanding of the destination's cultural, ecological, and social dimensions [14]. The intricacies of integrating these elements into marketing content underscore the complexity of influencing behavioral intentions to travel toward eco-destinations [15]. In conclusion, addressing these challenges requires a holistic approach, where marketing strategies go beyond superficial greenwashing and authentically convey the unique attributes of eco-destinations, fostering a genuine sense of place attachment and compelling behavioral intentions to visit.

This research endeavors to design an Information System for Tourism and Travel Vlog Content statistical analysis. The system's primary focus is to provide a comprehensive and analytical framework for evaluating statistics related to tourism and travel vlog content [16]. This encompasses quantitative metrics such as viewership, engagement, and demographic insights, aiming to offer content creators, marketers, and stakeholders a data-driven approach to optimize their strategies [17]. In light of the burgeoning influence of travel vlogs in shaping tourism perceptions, the proposed system aims to contribute to a more informed decision-making process [18]. Integrating such a system holds promise in enhancing the effectiveness of content creation and marketing efforts within the tourism industry [19]. In conclusion, the development of this Information System represents a step towards leveraging data analytics to refine and elevate the impact of tourism and travel vlog content in the contemporary digital landscape.

Previous studies with similar topics have been limited to Social Network Analysis (SNA) and sentiment analysis, neglecting the comprehensive integration of statistical data in a unified database through a designated information system [20]. The main limitation of these earlier studies lies in their narrowed focus on specific aspects, such as SNA and sentiment analysis, overlooking the holistic compilation of statistical data in a centralized database [21]. To conduct a thorough analysis, gathering diverse statistical information encompassing various dimensions is essential, necessitating data consolidation in a unified database [22]. By doing so, researchers conduct more robust comparisons of content with similar themes, exploring the interconnected relationships between various statistical metrics and shedding light on nuanced patterns within the content [23]. The more inclusive approach incorporating the entirety of statistical data provides a more comprehensive understanding of the subject matter [24]. In conclusion, there is a compelling need for future research to broaden its scope and incorporate a holistic database and information system approach, fostering a more nuanced and integrated analysis of content with similar themes.

This research is delimited to the design of a statistical database for Tourism and Travel Vlog content, specifically aimed at informing the creation of compelling storynomic content. The primary objective is to establish a robust data storage and analysis foundation, encompassing key metrics such as viewership, engagement, and demographic details relevant to the tourism and travel vlogging domain [25]. This statistical database is a critical resource for content creators and marketers, offering insights into audience preferences and trends. The emphasis on storynomic content underscores the significance of incorporating narrative elements into tourism-related vlogs, enhancing viewer engagement and fostering a more profound connection [26]. In conclusion, the research's scope aligns with the evolving landscape of digital content creation, strategically utilizing statistical data for the purposeful design of engaging storynomic content within the Tourism and Travel Vlog domain.

The urgency of this research lies in the scarcity of statistical databases focusing on Tourism and Travel Vlog content, which serve as essential references for the innovation of practical and creative content to stimulate tourist visits to destinations. This research's primary rationale is the lack of comprehensive data repositories, hindering content creators and marketers from making informed decisions based on audience preferences and engagement patterns [27].

Establishing a dedicated statistical database is imperative for developing data-driven strategies to enhance the effectiveness of creative content. The scarcity of such databases has resulted in a gap in understanding audience behaviors and preferences, limiting the potential of tourism and travel vlogs to attract visitors [28]. In conclusion, this research addresses a critical need by emphasizing the importance of a statistical foundation for content innovation, providing a valuable resource for fostering more impactful strategies to drive tourist engagement with destinations.

A recommendation for further research involves the analysis of content and statistics through a sentiment classification approach to identify tourist satisfaction after visiting tourist destinations. The central proposition is to employ sentiment analysis as a valuable tool for discerning and categorizing the emotional tone expressed in various forms of content, such as reviews, feedback, and social media posts related to tourist experiences [29]. Utilizing sentiment classification can contribute to a nuanced understanding of tourists' satisfaction levels, enabling destination managers and marketers to gauge the overall sentiment associated with their offerings [30]–[35]. Integrating sentiment analysis into tourism research enhances the precision of satisfaction assessments and provides a proactive means to address areas for improvement. In conclusion, employing sentiment classification in content and statistical analysis represents a promising avenue for future research. It offers a more nuanced and data-driven approach to evaluating tourist satisfaction after they visit tourist destinations.

2. RESEARCH METHODOLOGY

2.1 Rapid Application Development (RAD)

This research adopts the Rapid Application Development (RAD) methodology for designing the database and video content of Tourism and Travel Vlogs using Oracle APEX. The principal approach involves leveraging RAD's iterative and collaborative nature to expedite the development process, allowing quick prototyping and refinement. By employing RAD, researchers can efficiently address the dynamic and evolving nature of content creation within the tourism and travel vlogging domains. Using Oracle APEX as a platform adds a layer of versatility and scalability to the development process, enabling seamless integration of database functionalities with video content design. The choice of RAD and Oracle APEX reflects a strategic alignment with the fast-paced and adaptive requirements inherent in the digital content landscape. In conclusion, this research methodology enhances database and content design efficiency, providing a robust foundation for developing Tourism and Travel Vlog content in a rapidly evolving digital environment.

The strength of the Rapid Application Development (RAD) methodology lies in its flexibility during the requirement planning and user design phases, facilitating the creation of prototypes tailored to user needs. The primary advantage stems from RAD's iterative nature, enabling constant feedback loops between developers and end-users. This iterative process allows for real-time adjustments and refinements, ensuring that the prototype aligns closely with user expectations. This adaptability enhances the overall responsiveness of the development process, promoting a more user-centric approach and reducing the likelihood of misalignments between the final product and user requirements. In conclusion, the flexibility offered by RAD in requirement planning and user design phases contributes to the efficient and accurate development of prototypes that precisely address user needs and expectations, as shown in the figure below.

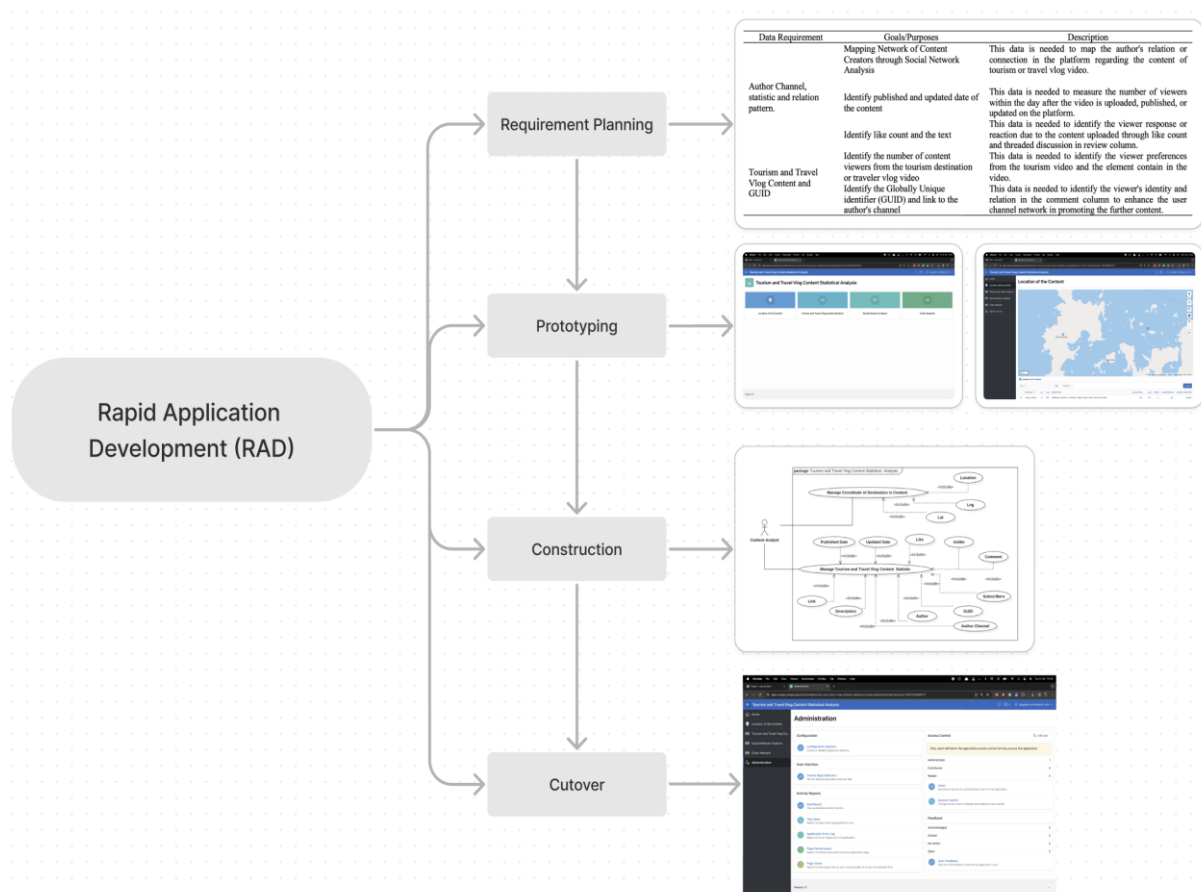


Figure 1. Rapid Application Development (RAD)

Figure 1 shows the Rapid Application Development (RAD) stages of the application database and information system design. The stages within the Rapid Application Development (RAD) methodology encompass a systematic progression through four key phases: user requirement, user design, construction, and cutover. The initial user requirement phase involves in-depth analysis and documentation of end-users functional and operational needs. Subsequently, the user design phase focuses on translating these requirements into a tangible prototype, fostering collaboration between developers and end-users to ensure alignment with user expectations. The construction phase involves the actual development of the application, utilizing the feedback received during



the user design phase for iterative improvements. Lastly, the cutover phase marks the transition to the final product, encompassing tasks such as data migration, system testing, and user training. This structured progression within RAD underscores its efficiency in accommodating dynamic project requirements and user feedback, promoting a collaborative and iterative development process. In conclusion, delineating these stages in RAD ensures a methodical and adaptive approach, fostering the creation of applications that meet user needs effectively.

2.1.1 Requirement Planning Phase

In the requirement planning phase, the process entails the identification of statistical data needs and sourcing content for Tourism and Travel Vlogs from the YouTube platform. The primary objective during this phase is to meticulously delineate and document the specific requirements related to statistical data and video content that are essential for the successful development of the database and content design. This involves a comprehensive examination of the desired statistical metrics, such as viewership analytics, engagement metrics, and demographic insights, crucial for informing content creation strategies. Furthermore, the focus on sourcing content from YouTube underscores recognizing the platform's significance as a primary repository for travel-related video content. This strategic approach in the requirement planning phase ensures that the subsequent stages of the project are founded upon a clear understanding of the necessary data elements and content sources vital for the development of a practical Tourism and Travel Vlog database. In conclusion, the meticulous identification of data needs and content sources at this stage lays the groundwork for a robust and informed development process.

Table 1. User Requirement for Database and Information System

Data Requirement	Goals/Purposes	Description
Author Channel, statistic and relation pattern.	Mapping Network of Content Creators through Social Network Analysis	This data is needed to map the author's relation or connection in the platform regarding the content of tourism or travel vlog video.
	Identify published and updated date of the content	This data is needed to measure the number of viewers within the day after the video is uploaded, published, or updated on the platform.
	Identify like count and the text	This data is needed to identify the viewer response or reaction due to the content uploaded through like count and threaded discussion in review column.
Tourism and Travel Vlog Content and GUID	Identify the number of content viewers from the tourism destination or traveler vlog video	This data is needed to identify the viewer preferences from the tourism video and the element contain in the video.
	Identify the Globally Unique identifier (GUID) and link to the author's channel	This data is needed to identify the viewer's identity and relation in the comment column to enhance the user channel network in promoting the further content.

Table 1 shows the requirement planning as the first step of system design. In the requirement planning phase, it becomes evident that there is a necessity for data related to the Author Channel, statistics, relation patterns, and data associated with Tourism and Travel Vlog Content and GUID (Globally Unique Identifier). During this stage, the principal focus is identifying and articulating the essential components for the subsequent design and development of the database and content analysis system. The need for Author Channel data recognizes the significance of understanding the creators behind the travel vlogs. At the same time, statistical and relation patterns data are integral for gauging engagement metrics and audience interactions. In addition, incorporating data related to Tourism and Travel Vlog Content and GUID ensures a comprehensive approach to content analysis. It facilitates the creation of a unique identifier system for efficient data management. Recognizing these data requirements in the requirement planning phase is pivotal for establishing a well-informed foundation that aligns with the objectives of the Tourism and Travel Vlog content analysis system. In conclusion, identifying these specific data needs contributes to the precision and effectiveness of the subsequent stages in the development process.

2.1.2 User Design

In the user design phase, the process involves the design of the information system flow and database for Tourism and Travel Vlog Content, employing the use case diagram methodology. The primary objective during this stage is to visualize and outline the interaction between users and the system and among different system components to ensure a coherent and user-friendly design. Use case diagrams facilitate the depiction of various scenarios, illustrating how users interact with the system and how it responds to their actions. This methodology provides a comprehensive overview of system functionalities, aiding in identifying essential components and their interdependencies. Using use case diagrams in the user design phase enhances the clarity of system requirements and functionalities, fostering a more intuitive and user-centric design. In conclusion, incorporating use case

diagrams in the user design phase proves instrumental in creating a structured and comprehensible blueprint for the Tourism and Travel Vlog Content information system and database.

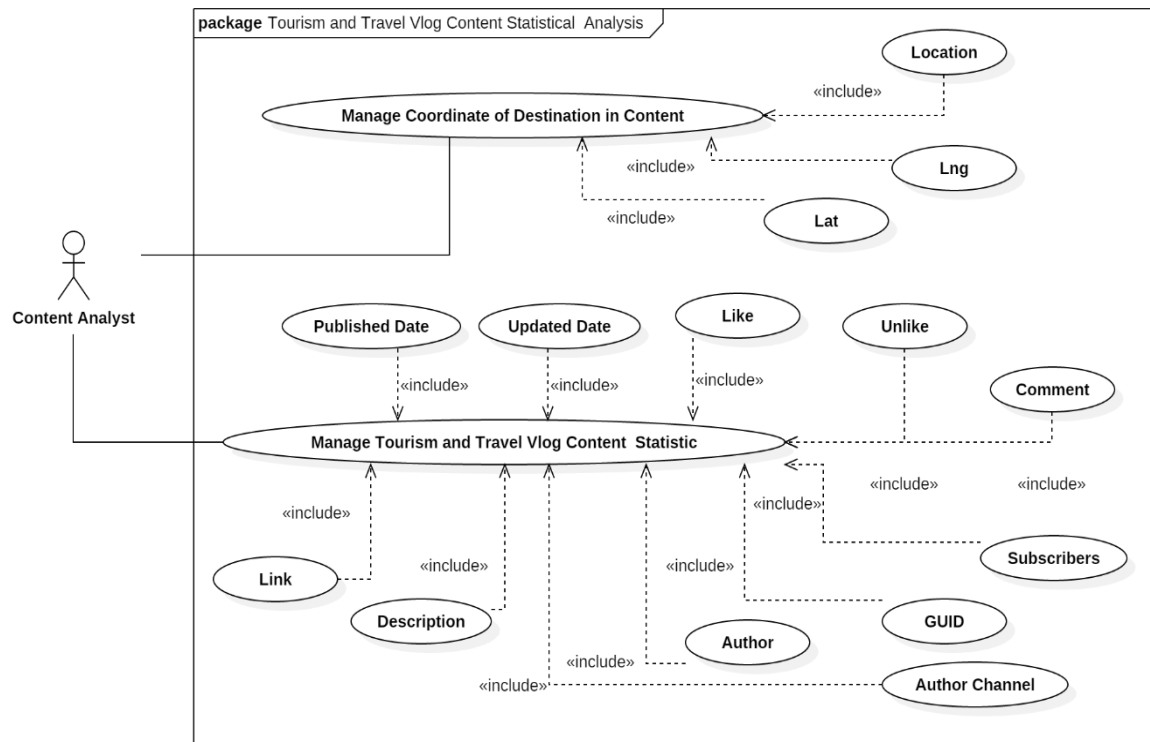


Figure 2. Use Case of Tourism and Travel Vlog Content Statistical Analysis System

Figure 2 shows the use case of the tourism and travel vlog content statistical analysis system. The Tourism and Travel Vlog Content Statistical Analysis System offers multifaceted benefits in content analysis and marketing strategy. The primary advantage lies in its ability to provide actionable insights derived from statistical data, enabling content creators and marketers to make informed decisions. This system facilitates a comprehensive understanding of audience engagement, demographic patterns, and content preferences, thereby enhancing the tailoring of content to meet viewer expectations. In addition, the system's capability to analyze and interpret sentiment and feedback contributes to developing more resonant and customer-focused travel narratives. The application of this system not only optimizes content creation strategies but fosters a more meaningful connection between content producers and their target audience. In conclusion, the Tourism and Travel Vlog Content Statistical Analysis System is a valuable tool for refining content and marketing strategies, ultimately contributing to a more effective and engaging representation of travel experiences.

The outcomes of the use case diagram design in the Tourism and Travel Vlog Content Statistical Analysis System underscore a focus on user requirements. The use case diagram is a crucial visual representation in the primary stage of the system's development, delineating how users interact with the system. It places a substantial emphasis on understanding the needs and expectations of the end-users, depicting scenarios that encapsulate their interactions with different functionalities of the system. This user-centric approach ensures that the design aligns seamlessly with user expectations and provides an intuitive interface. The emphasis on user requirements through the use case diagram is essential for fostering user satisfaction and system usability. In conclusion, the meticulous use case diagram design is instrumental in ensuring that the Tourism and Travel Vlog Content Statistical Analysis System is tailored to meet its intended users' needs and preferences.

2.1.3 Construction Phase

During the cutover phase, the database and every page of the Tourism and Travel Vlog Content Statistical Analysis System are crafted using Oracle APEX. The primary focus at this juncture is the seamless transition from the development phase to the operational deployment of the system. Utilizing Oracle APEX in the design process ensures high efficiency and adaptability, allowing for the integration of database functionalities and user interfaces in a cohesive manner. This platform streamlines the development process and offers scalability and versatility for future enhancements. The selection of Oracle APEX for database and application page design in the cutover phase signifies a strategic choice in aligning with a robust and widely-used platform, ensuring a smooth and effective transition to the operational stage. In conclusion, incorporating Oracle APEX in the cutover phase contributes to the overall success of the Tourism and Travel Vlog Content Statistical Analysis System, providing a solid foundation for its functionality and future development, as shown in the figure below.

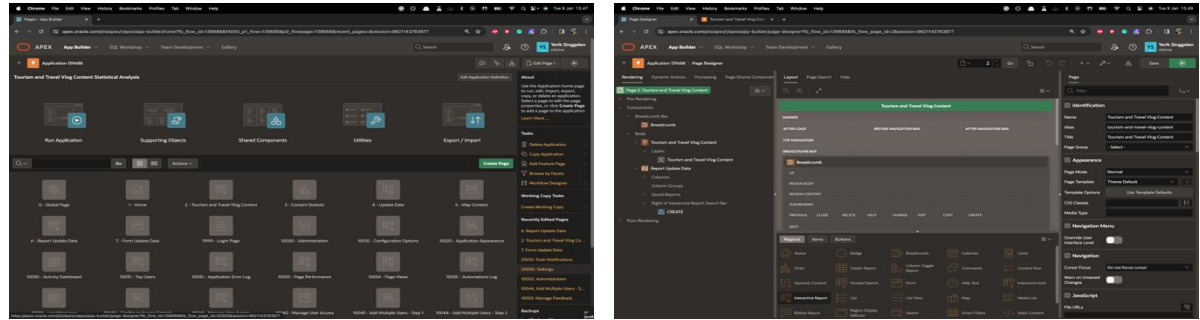


Figure 3. Database and System Design using Oracle-Apex

Figure 3 shows the database and system design using Oracle-apex. The challenge encountered during the construction phase revolves around adjusting data displays to meet the specific needs of users in the statistical content analysis. In this critical application development stage, aligning data presentation with users' varied requirements is complex. The primary focus is tailoring the visual representation of statistical content to ensure its relevance and comprehensibility to diverse user groups. The challenge involves providing detailed insights and maintaining an intuitive and user-friendly interface. In my opinion, overcoming this challenge is pivotal for the system's success, as the effectiveness of statistical analysis heavily depends on the accessibility and clarity of the presented data. In conclusion, addressing the challenge of adapting data displays in construction is essential to enhance user engagement and ensure the application's efficacy in delivering meaningful insights through statistical content analysis.

2.1.4 Cutover Phase

During the cutover phase, the application becomes operational and utilized according to the specified requirements to analyze statistical data of tourism and travel vlog content, thereby facilitating the generation of compelling and captivating content. In this pivotal stage, the system transitions from the development environment to real-world usage, allowing stakeholders to access and leverage its functionalities for content analysis. The emphasis is on meeting the need for robust statistical insights into video content related to tourism and travel vlogs. This operationalization of the application enables the extraction of valuable data that informs content creators and marketers, empowering them to produce engaging and relevant content. The cutover phase marks a significant milestone, as it transforms the theoretical potential of the system into practical utility, contributing to the ongoing cycle of content improvement and innovation. In conclusion, utilizing the application during the cutover phase plays a pivotal role in enhancing the analytical capabilities for tourism and travel vlog content, ultimately fostering the creation of compelling and captivating content.

The results of the application's testing indicate that the functions, features, and operators can be executed successfully, concluding that the application has been deemed successful. Verifying various functions and features in the primary testing stage demonstrated their effectiveness and functionality. The successful execution of operators during the testing phase underscores the reliability and accuracy of the application's core functionalities. These positive outcomes affirm that the application meets the specified requirements and can perform its intended tasks efficiently. The application's success, as evidenced by the positive test results, reflects the meticulous design and development process, ensuring the system operates seamlessly. In conclusion, the conclusive results from the application testing phase affirm its functionality and indicate that it has successfully met the predetermined criteria for operational success.

3. RESULT AND DISCUSSION

Tourism development in Indonesia within the era of digital technology has witnessed substantial transformations. The primary catalyst for this evolution lies in the widespread adoption and integration of digital technologies across various facets of the tourism industry [36]. The burgeoning availability of online platforms, social media, and travel applications has significantly altered how information is disseminated, accessed, and shared within the tourism sector.

Consequently, this has enhanced the visibility of Indonesian destinations, increased accessibility for potential tourists, and created a more interactive engagement between travelers and tourism providers [37]. The symbiotic relationship between tourism and digital technology has amplified the promotional reach of Indonesian destinations and enabled a more personalized and immersive travel experience for visitors. In conclusion, the ongoing development of tourism in Indonesia in the digital age underscores the transformative impact of technology on the industry, offering new opportunities and challenges that necessitate continuous adaptation and innovation.

The marketing of tourism in Indonesia has undergone significant advancements through innovations, particularly the adoption of immersive technologies such as augmented reality (AR), virtual reality (VR), and

extended reality (XR) [38]. The central proposition revolves around integrating these immersive technologies into tourism marketing strategies, enhancing the promotional efforts for Indonesian destinations. Augmented reality provides a layer of interactive digital information, virtual reality offers immersive simulated environments, and extended reality combines real and virtual elements [39]. This integration has elevated the overall promotional appeal and provided potential tourists with experiential previews of Indonesian attractions [40]. The incorporation of immersive technologies signifies a strategic move to captivate and engage the modern traveler, offering a unique and compelling perspective of the diverse offerings within Indonesia. In conclusion, using augmented, virtual, and extended reality in tourism marketing exemplifies Indonesia's forward-thinking approach, leveraging technology to showcase its rich cultural and natural assets in a more immersive and captivating manner.

One of the tourism marketing strategies that effectively stimulates the intention to travel is the online publication of video content and vlogs. The primary thrust of this approach lies in leveraging the power of digital platforms to disseminate compelling visual narratives that showcase the beauty and uniqueness of tourist destinations [41]. Creating and disseminating video content and vlogs enable potential travelers to virtually experience the essence of a destination, fostering a sense of connection and curiosity. Using online videos and vlogs in tourism marketing represents a contemporary and influential method, capitalizing on visual and experiential appeal to inspire and attract prospective tourists. In conclusion, deploying online video and vlog content is a potent marketing strategy for igniting the desire to travel, offering a dynamic and engaging way to showcase a destination's diverse attractions and experiences.

Henceforth, delving into the statistics of tourism marketing video content can facilitate content creators to generate similar content with optimal outcomes in stimulating the intention to travel. The central premise revolves around the idea that a comprehensive understanding of statistical insights, including viewership analytics, engagement metrics, and audience preferences, equips content creators with valuable information to tailor their content effectively. By analyzing these statistics, content creators can discern patterns, identify successful elements, and make informed decisions in crafting content that resonates with the audience. Using statistical data in content creation is a strategic move and crucial in ensuring the relevance and resonance of tourism marketing efforts. In conclusion, incorporating statistical insights enhances the efficiency and effectiveness of content creators, empowering them to produce content that optimally captures and sustains the interest of potential travelers.

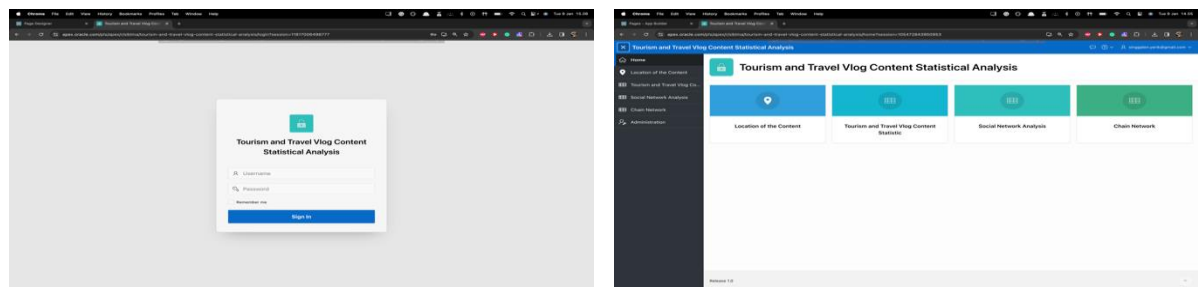


Figure 4. Login and Dashboard of Tourism and Travel Vlog Content Statistical Analysis System

Figure 4 shows the login and dashboard of the application. The Login and Dashboard functionalities within the Tourism and Travel Vlog Content Statistical Analysis System are pivotal in providing users with secure access and a comprehensive overview of statistical insights. The primary function of the Login feature is to authenticate users, ensuring that only authorized individuals gain access to the system. Once logged in, users are directed to the Dashboard. This centralized interface is a hub for presenting key statistical metrics and data visualizations related to tourism and travel vlog content. The Dashboard is a user-friendly and informative platform, facilitating efficient navigation and interpretation of essential statistical information. The integration of a secure and user-centric Login system, coupled with an intuitive Dashboard, enhances the overall user experience and ensures that stakeholders can readily access and comprehend the statistical analyses provided by the system. In conclusion, the Login and Dashboard components are critical features in the Tourism and Travel Vlog Content Statistical Analysis System, contributing to its functionality and usability.

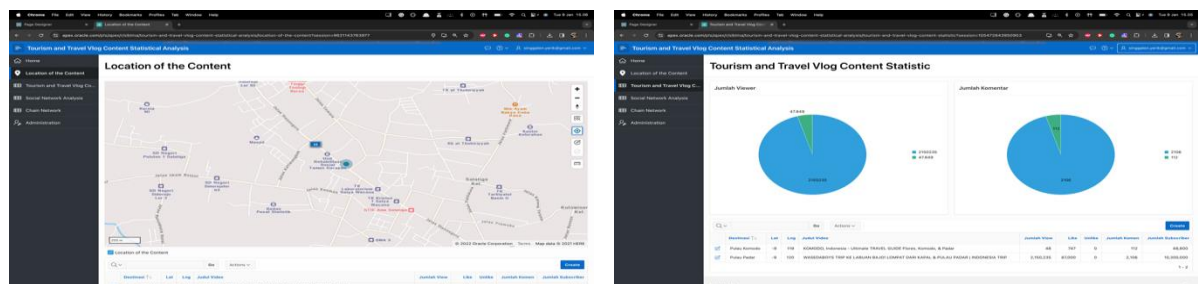


Figure 5. Tourism and Travel Vlog Content Statistical Analysis System

Figure 5 shows the location of the content and the tourism travel vlog content statistic. The application comprises two essential pages, namely, the "Location of the Content" and "Content Statistic," serving as integral components that facilitate users in comprehending the geographical origin of the content based on a map. The primary purpose of the "Location of the Content" page is to provide users with a visual representation of the geographic distribution of the content, allowing them to discern the specific locations where images or videos were captured. This is achieved through an interactive map interface, which enhances the user's spatial understanding of the content. The "Content Statistic" page complements this by offering comprehensive statistical insights related to the uploaded content, including viewership analytics, engagement metrics, and demographic information. Including these two pages exemplifies a thoughtful design approach, providing users with a well-rounded understanding of the geographic context and statistical performance of tourism and travel vlog content. In conclusion, integrating the "Location of the Content" and "Content Statistic" pages enhances the usability and analytical capabilities of the system, contributing to a more enriched user experience.

The application features two distinctive pages, "Social Network Analysis" and "Chain Network," designed to offer insights into the interconnected relationships among authors commenting on uploaded content. The primary function of the "Social Network Analysis" page is to visualize and analyze the social connections between authors engaging with the content, presenting a graphical representation of the network. This allows users to discern patterns, identify influential contributors, and understand the collaborative dynamics within the social network. Complementing this, the "Chain Network" page illustrates the sequential patterns of author interactions, providing a chronological overview of the commenting chain. Incorporating these two pages enhances the system's analytical capabilities and provides users with a comprehensive understanding of the social dynamics surrounding the content. In conclusion, the "Social Network Analysis" and "Chain Network" pages contribute significantly to the depth and breadth of insights, fostering a more nuanced comprehension of author interactions within the uploaded content's social context.

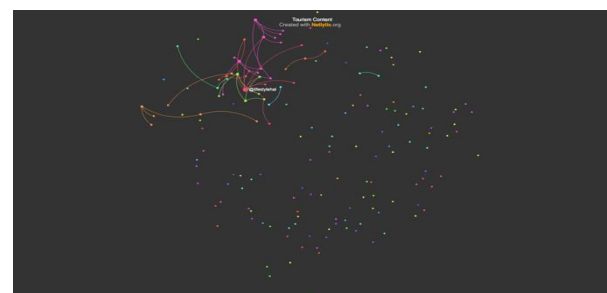
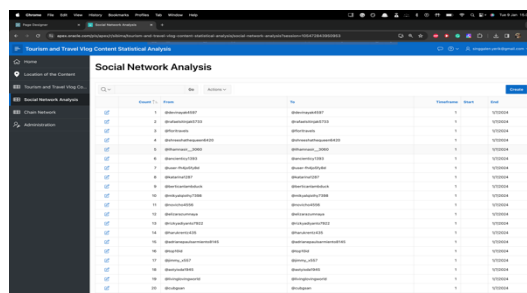
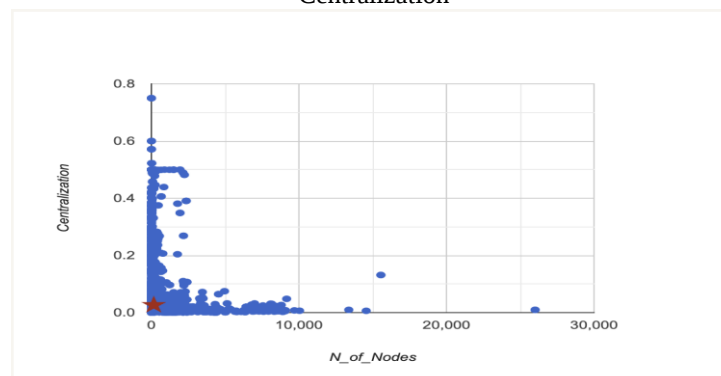


Figure 6. Chain Network Data for Social Network Analysis (SNA)

Figure 6 shows that the Social Network Analysis can integrate with the Netlitic website to visualize Fruchterman Reingold. Social Network Analysis is indispensable for observing the nodes' centralization, density, reciprocity, modularity, and diameter within a network structure. The centralization metric provides insights into the concentration of influence within the network, indicating the degree to which specific nodes dominate the communication or interaction patterns. Density measures the level of interconnectedness among nodes, reflecting the strength of relationships within the network. Reciprocity assesses the extent to which connections in the network are mutual, indicating the presence of bidirectional interactions. Modularity examines the network's degree of clustering and compartmentalization, identifying distinct subgroups. Lastly, diameter measures the maximum distance between any pair of nodes, offering insights into the overall reach and interconnectedness of the network. Employing Social Network Analysis for these metrics provides a comprehensive understanding of the structural dynamics, functional characteristics, and overall health of social interactions within the network. In conclusion, utilizing these metrics is crucial for gaining nuanced insights into the complex interplay of relationships and communication patterns in a social network.

Centralization



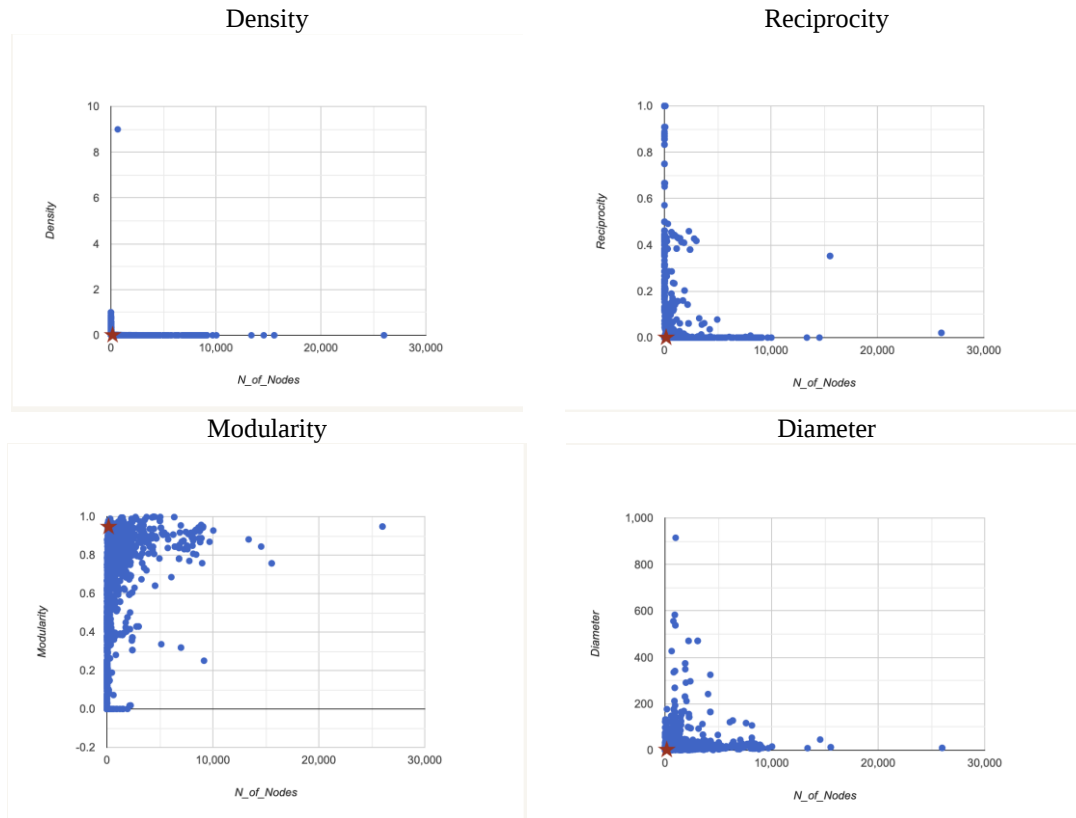


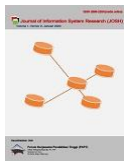
Figure 7. Social Network Analysis (SNA) Based on Content Review Dataset

Figure 7 shows the importance of Social Network Analysis (SNA) through the chain network of the content. The "Social Network Analysis" page is imperative for scrutinizing viewer interactions by specifically analyzing centralization, density, reciprocity, modularity, and diameter of the nodes formed through content-creator interactions. This page is a critical tool for understanding the intricate dynamics within the social network that emerge from the interactions between content creators and viewers. Centralization metrics aid in gauging the concentration of influence among content creators, highlighting critical figures within the network. Density measurements reveal the intensity of connections between content creators and viewers, signifying the overall strength of their interactions. Reciprocity analysis discerns the mutual exchange of engagement, offering insights into the bidirectional nature of interactions. Modularity assessments identify distinctive subgroups within the network, while diameter measurements quantify the maximum distance between any two nodes, reflecting the overall reach of the network. Utilizing these metrics on the SNA page provides a nuanced understanding of the viewer-content creator dynamic, enhancing the platform's capacity to optimize user engagement and foster a more interconnected online community. In conclusion, this page proves instrumental in deciphering the specific characteristics and nuances of the network formed through interactions, contributing to a more insightful analysis of the social landscape within the platform.

Thus, the design of the database and information system in the Tourism and Travel Vlog Content Statistical Analysis System can be utilized to analyze the structure and patterns of networks among content creators, catalyzing designing captivating content for tourists. The central focus lies in the database and information system's capability to unveil the intricacies of content creator networks, providing a visual representation of their relationships and interactions. This comprehensive analysis becomes instrumental in identifying influential content creators, discerning collaboration patterns, and understanding the overall dynamics of the content creation community. The strategic use of this system not only enhances the understanding of network structures but also acts as a potent source of inspiration for crafting engaging content that resonates with the preferences and interests of tourists. In conclusion, integrating the database and information system within the Tourism and Travel Vlog Content Statistical Analysis System is a valuable resource for network analysis and a creative catalyst in continually pursuing compelling and attractive content for travelers.

4. CONCLUSION

The findings of this research indicate that the design of the database and information system in the Tourism and Travel Vlog Content Statistical Analysis System is beneficial for content creators in generating content based on tourism themes to stimulate the travel intentions of viewers. Moreover, the Social Network Analysis (SNA) feature



is instrumental in analyzing the network patterns among viewers who comment on the content. The main thrust lies in the system's capacity to assist content creators in tailoring their content to resonate with tourism themes, enhancing its appeal to potential travelers. The SNA feature, on the other hand, provides valuable insights into viewer interactions, facilitating a deeper understanding of the social dynamics and relationships within the viewer community. The dual functionality of the system not only aids in content creation but also augments the analytical capabilities of content creators, fostering a more informed and strategic approach to engaging with their audience. In conclusion, integrating the database and information system with the SNA feature underscores its significance in empowering content creators and enhancing their ability to craft tourism-related content that captivates and inspires potential travelers.

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