

# Digital storyline and QR Code implementation to enhance the tourism appeal of the Kecak Dance

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## ABSTRACT

This community service activity aims to increase the appeal of the Kecak Dance performance at Pura Luhur Uluwatu by introducing an innovative digital storyline on the website and utilizing QR codes. This activity was carried out in collaboration with Sekaa Karang Boma as the manager and administrator of the Kecak Dance performance at Pura Luhur Uluwatu as a partner. The implementation method is described through a qualitative descriptive approach that includes eight stages of activities, namely socialization and identification of partner needs, website design and draft presentation, website management and digital marketing training, content development and documentation assistance, to evaluation and delivery of the final product. The QR code directs tourists to the website, allowing them to access information and storylines conveniently via their mobile devices. Socialization and content management training were also provided to Sekaa Karang Boma to ensure the sustainability of this digital media. The evaluation results show that this innovation was positively received by managers and tourists, with an average rating of 4.193 (Good). These findings confirm that the implementation of the community service program was able to improve the effectiveness of promotion and management of digital-based services and contribute to the sustainable strengthening of partner capacity.

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## 1. INTRODUCTION

Cultural tourism is a form of tourism that emphasizes cultural heritage as its primary attraction. The preservation of cultural tourism is essential because it functions as a medium through which future generations can continue to understand and appreciate local traditions and cultural values amid rapid technological development (Choirunnisa & Karmilah, 2022). Cultural tourism represents one of the tourism sectors with strong appeal for both domestic and international visitors. Indonesia, particularly Bali, possesses a rich and diverse cultural heritage of significant value. One prominent example is the Kecak Dance, which has become an iconic cultural performance at Pura Luhur Uluwatu. The uniqueness and authenticity of this dance make it a major attraction in Bali's cultural tourism offerings (Suweta, 2020; Wiradharna et al., 2025).

In the context of globalization and the rapid advancement of information technology, the promotion of cultural attractions needs to shift from conventional methods to digital-based approaches.

Contemporary tourists increasingly depend on digital technologies to access information about tourism destinations. Therefore, innovation in the presentation of information and the promotion of cultural attractions through digital media has become highly relevant (Karmin, 2025; Putra et al., 2022).

Based on a direct interview with one of the managers of the Kecak Dance performance in Uluwatu, the initial establishment of the performance was motivated by the limited number of tourist attractions in the area, which consequently restricted income opportunities for local residents. The Kecak Dance performance at Pura Luhur Uluwatu is currently held daily in two sessions. The first session begins at 6:00 PM WITA and the second session begins at 7:00 PM WITA. The initiative to organize the Kecak performance as an additional tourist attraction, in addition to the temple itself, was undertaken by two residents of Uluwatu Village affiliated with Sanggar and Tabuh Karang Boma. This initiative subsequently developed further, and in 1996 Sekaa Kecak Karang Boma was formally established to perform the Ramayana epic, particularly the episode of Hanoman Duta. There are two performing groups that alternate performances. Sekaa Karang Boma performs on Mondays, Wednesdays, Fridays, and Saturdays, while Sekaa Kecak Uluwatu performs on Tuesdays, Thursdays, and Sundays. The ticket price is IDR 150,000 per adult and IDR 75,000 per child aged 4 to 9 years.

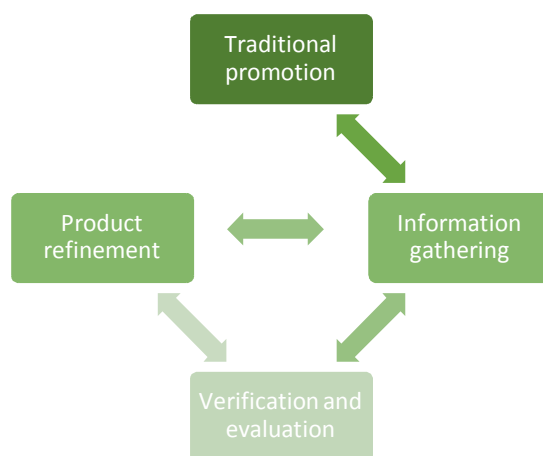
The Kecak Dance performance managed by Sekaa Karang Boma at Pura Luhur Uluwatu is recognized as one of the most popular cultural performances among tourists. This is evidenced by the fact that, out of a total daily capacity of 2,500 spectators, attendance rates regularly exceed 90 percent for each performance. The average number of daily visitors reaches approximately 1,500 people and can increase to 2,500 people per day during the high season. The audience is predominantly composed of domestic tourists as well as visitors from Europe and India.

Despite this high level of demand, operational practices continue to rely primarily on printed materials and direct promotion, both of which have limited reach and effectiveness. This condition highlights the need to adopt digital technologies such as websites and QR codes as more efficient operational tools that align with the preferences and expectations of contemporary tourists. To assist visitors in understanding the storyline, each audience member is provided with a printed pamphlet containing a summary of the Ramayana narrative. Approximately 300 to 500 brochures are distributed daily in a total of 13 languages, including Indonesian, English, Hindi, Mandarin, Spanish, and Korean. Over a three-month period, this practice consumes approximately five reams of paper for the Indonesian and English versions and three reams for each of the other language versions. This approach is considered inefficient due to high production costs, relatively low levels of tourist engagement with printed brochures, and its inconsistency with the principles of sustainable tourism that are currently being promoted (Pageh et al., 2022).

Therefore, cultural promotion websites play a crucial role in delivering accurate, engaging, and easily accessible information (Ramadhani & Setiawan, 2024; Sudianto, 2018). Digital media such as websites can enhance the image of cultural destinations and facilitate tourist engagement in the trip planning process (Mandarani et al., 2024). A website developed with an interactive design and multilingual content is more likely to be well received by international visitors. QR codes, as rapid scanning technologies accessible via smartphones, have been widely adopted across various sectors, including tourism. The use of QR codes enables tourists to access essential information directly and in real time. In the context of cultural attractions, QR codes can function as a bridge between the physical on-site experience and digital information that enriches visitors' understanding (Astawa et al., 2018; Yuniati & Darajat, 2024).

Collaboration between higher education institutions and local communities represents a strategic approach to supporting the sustainable preservation and promotion of local culture. In the context of community engagement programs, universities serve not only as academic institutions but also as agents of empowerment that transfer knowledge, technology, and skills to partner communities. This approach

emphasizes mentorship processes, active community participation, and capacity building to ensure that partners are able to independently manage their potential resources. In this initiative, the collaboration between Politeknik Negeri Bali and Sekaa Karang Boma was realized through the implementation of digital technology-based innovations tailored to the needs of the community. Such synergy constitutes a key factor in ensuring that the implemented innovations are not only responsive to challenges related to promotion and information management, but also acceptable, operable, and sustainably developed by the partner. Accordingly, this community engagement activity is oriented toward program sustainability and the strengthening of community capacity in supporting the preservation and promotion of local culture.



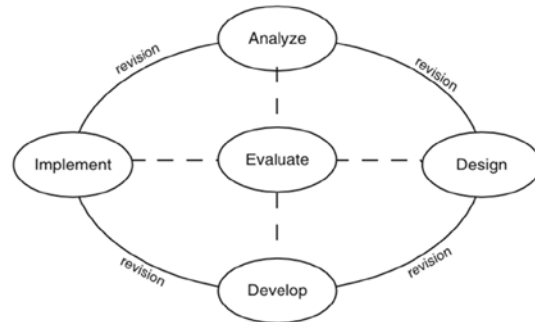
**Figure 1.** Problem solving solution framework

## 2. METHODS

This community engagement activity employed a descriptive qualitative approach by adopting the interactive model proposed by Miles et al. (2014b). The approach was intended to describe the process, responses, and impacts of implementing digital promotional media in the form of a website and QR codes to strengthen the attractiveness of the Kecak Dance performance at Pura Luhur Uluwatu. This approach was selected to obtain an in-depth understanding of the experiences of the partner organization, Sekaa Karang Boma, as well as tourists regarding the implemented innovation.

The community engagement program was conducted in collaboration with Sekaa Karang Boma as the primary partner, located in the Pura Luhur Uluwatu area, Pecatu Village, South Kuta District, Badung Regency, Bali. The partner is a cultural arts group that plays an active role in preserving and performing the Karang Boma Dance as part of the cultural tourism attractions in the area. The activity involved a community engagement team from Politeknik Negeri Bali consisting of one lecturer and six students, with task distribution aligned to their respective areas of expertise in technology development, digital marketing, mentoring, and community empowerment. The partner group comprised 20 dancers, 4 ticketing staff members, and 1 reservation officer.

The concept of storyline digitalization implemented in this activity refers to the process of transforming the Karang Boma performance narrative into a structured and easily accessible digital format for tourists. Previously conveyed in written and oral forms during the performance, the storyline was developed into digital content consisting of plot descriptions, philosophical values, performance duration, visual documentation, and other supporting information presented through the partner's official website.



**Figure 2.** Product development stages (Branch, 2009)

The development process adopted the ADDIE model, which stands for Analysis, Design, Development or Production, Implementation or Delivery, and Evaluation (Figure 2). Originally developed by Dick and Carey in 1996 as a framework for designing instructional systems, the updated model proposed by Branch (2009) was applied in this activity. The stages implemented included: (1) Ideation and research; (2) Planning and product definition; (3) Prototyping; (4) Design; (5) Testing; and (6) Product development and launch (Arora, 2024). The implementation of the activity consists of several stages in Table 3.

### **Initial Observations at the Kecak Dance Performance Location and Informal Interviews with Managers and Tourists**

Preliminary observations were conducted directly at the Kecak Dance performance site at Pura Luhur Uluwatu to identify on-site conditions, visitor flow patterns, and the promotional media currently utilized by the management. The observation aimed to understand the operational context of the performance, tourists' information-seeking behavior, and potential strategic points for QR code placement. In addition to observation, informal interviews were conducted with the performance management, namely Sekaa Karang Boma, to gather information regarding existing promotional strategies, challenges encountered, and expectations concerning the implementation of digital media. Informal interviews were also carried out with several domestic and international tourists to examine their information-search patterns before and during their visit, their openness toward digital technology usage, and their preferences regarding the format of information presented. The findings from these initial observations and interviews served as a critical foundation for designing the website and optimizing the utilization of QR codes to ensure alignment with user needs and behavioral patterns in the field.

### **Design and Development of Digital Media in the Form of Websites and QR Codes**

The design and development of digital media were carried out through the creation of an informative website integrated with QR codes to provide quick access for users. The website was designed by considering aspects of functionality, aesthetics, and ease of navigation to ensure comfortable access across various devices, particularly smartphones commonly used by tourists. The content featured on the website includes comprehensive information regarding the history and significance of the Kecak Dance, performance schedules, the profile of Sekaa Karang Boma as the managing organization, visual documentation in the form of photographs and videos, as well as additional information related to regulations and access to the performance venue. The website's visual design incorporates distinctive Balinese cultural elements to strengthen local identity and deliver a digital experience aligned with the character of the cultural attraction presented.

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**Table 1.** Training activity meeting schedule

<b>1<sup>st</sup> Meeting</b>	<b>Initial observations at the Kecak Dance performance location and informal interviews with managers and tourists</b>	<b>Time</b>
Activities	Introduction of the group (service team) and explanation of the purpose and objectives of the activity (Figures 4, 5, 6)	March 2025 on the 1 <sup>st</sup> week to 3 <sup>rd</sup> week
Purposes	- Introduction of the assigned group and their respective responsibilities in the activity - Presentation of the activity design and training materials - Conducting interviews to visitors	
<b>2<sup>nd</sup> Meeting</b>	<b>Design and development of digital media in the form of websites and QR codes</b>	<b>Time</b>
Activities	Product draft presentation (website) (Figures 7, 8, 9, 10)	May 2025 on the 4 <sup>th</sup> week
Purposes	- Presentation of draft content created on the website. - Explanation of the importance of website management for website administrators.	
<b>3<sup>rd</sup> Meeting</b>	<b>Socialization and training for Sekaa Karang Boma regarding the use and management of the website (1)</b>	<b>Time</b>
Activities	Explanation of visit access data processing (Figure 9)	June 2025 on the 1 <sup>st</sup> week
Purposes	- Exposure to digital marketing - Explanation of SEO (Search Engine Optimization) and online booking	
<b>4<sup>th</sup> Meeting</b>	<b>Socialization and training for Sekaa Karang Boma regarding the use and management of the website (2)</b>	<b>Time</b>
Activities	Explanation of the use of WhatsApp Business (Figure 8)	June 2025 on the 2 <sup>nd</sup> week
Purposes	- Explanation of the automation features on WhatsApp, with a link embedded on the website, making reservation management easier. - Explanation of responsiveness in reservation management.	
<b>5<sup>th</sup> Meeting</b>	<b>Design and development of digital media in the form of websites and QR codes</b>	<b>Time</b>
Activities	Retrieval of additional documentation for feature development on the website	June 2025 on the 3 <sup>rd</sup> week to 4 <sup>th</sup> week
Purposes	- Collecting additional documentation to improve website content. - Explaining the need to update documentation on social media.	
<b>6<sup>th</sup> Meeting</b>	<b>Socialization and training for Sekaa Karang Boma regarding the use and management of the website (3)</b>	<b>Time</b>
Activities	Digital marketing presentation with the use of Instagram social media	July 2025 on the 2 <sup>nd</sup> week
Purposes	- Utilizing Instagram for digital marketing - Explanation of how to create captions to increase brand awareness	
<b>7<sup>th</sup> Meeting</b>	<b>Setting QR codes at strategic points in tourist areas</b>	<b>Time</b>
Activities	Explanation of QR usage (Figure 10)	July 2025 on the 3 <sup>rd</sup> week
Purposes	- Presentation of QR code usage, which will be redirected to the website that has been created. - Dissemination of QR code usage for sustainable tourism.	
<b>8<sup>th</sup> Meeting</b>	<b>Evaluation through interviews and short questionnaires to users</b>	<b>Time</b>
Activities	Closing and evaluation (Figure 11)	July 2025 on the 4 <sup>th</sup> week
Purposes	- Presentation of the final product website, enhanced with a bit.ly short link for easier access. - Product handover and evaluation of next steps	

Upon completion of the website development, a unique QR code was generated to direct users to the website's main page. The QR code was then adjusted in size to allow printing across various media, including banners, posters, entrance tickets, and information boards. The development of this digital media focused not only on visual presentation but also on usability and the sustainability of its management by Sekaa Karang Boma.

### **Installation of QR Codes at Strategic Points in Tourist Areas**

The installation of QR codes was carried out at strategic points within the Pura Luhur Uluwatu tourist area by considering visitor movement flow, visibility levels, and the potential for direct interaction with informational media. The selected locations included the main entrance area, ticket counters, the performance waiting area, the pathway leading to the Kecak Dance stage, and several resting spots commonly used by tourists for taking photographs or accessing information.

The QR codes were printed in sufficiently large sizes and mounted on weather-resistant media such as acrylic boards or waterproof stickers to ensure durability in outdoor conditions. In addition, each QR code was accompanied by brief instructions in two languages, Indonesian and English, to ensure readability for both domestic and international visitors. The installation process involved Sekaa Karang Boma as the managing body, both in identifying appropriate locations and in ensuring the maintenance of the promotional media. The presence of these QR codes is expected to encourage active tourist engagement with digital information related to the Kecak Dance, enrich the visitor experience, and enhance the professional image of local cultural attraction management.

### **Socialization and Training for Sekaa Karang Boma Regarding the Use and Management of the Website**

Socialization and training for Sekaa Karang Boma were conducted as an essential component of the technology transfer process and partner empowerment in managing digital promotional media. This activity aimed to ensure that the management possessed adequate understanding of the functions, benefits, and optimal use of the website and QR codes in supporting the promotion of the Kecak Dance performance.

The training materials included an introduction to the website structure and features, procedures for updating content such as performance schedules and photo or video documentation, and basic website management techniques through a user-friendly Content Management System that had been specifically designed for this purpose. In addition, the training incorporated simulations of QR code scanning by tourists, as well as guidance on how to respond to potential technical issues or visitor inquiries related to the information presented on the website.

The approach applied in this activity was participatory and practice-oriented, involving members of Sekaa Karang Boma directly in the use of digital devices and platforms. Through this training, the management is expected not only to function as passive users but also to independently manage and further develop promotional content on a sustainable basis. This capacity is essential to ensure the continuity and ongoing development of the digital media in alignment with future cultural promotion needs.

### **Evaluation through Interviews and Short Questionnaires to Users**

The evaluation of the digital promotional media implementation was conducted through interviews and the distribution of brief questionnaires to users, including tourists who had accessed information via the QR code and members of Sekaa Karang Boma management. Informal interviews were carried out

with several tourists after they watched the performance or while they were in the tourist area to explore their impressions, ease of access, and the benefits of the information obtained through the website. The questions addressed the extent to which the digital information assisted them in understanding the cultural context of the Kecak Dance, their level of comfort in accessing the website, and suggestions for further development.

Meanwhile, the questionnaire was structured using closed-ended questions based on a five-point Likert scale to assess user experience, QR code efficiency, website visual appearance, and satisfaction with the information provided (Table 2). The average scores were then analyzed according to the following categories. The data was also analyzed using the following analysis concepts in Figure 3.

**Table 2.** Score categories

Score	Category
1.00 – 1.80	Very Bad
1.81 – 2.60	Bad
2.61 – 3.40	Fair
3.41 – 4.20	Good
4.21 – 5.00	Very Good



**Figure 3.** Data Analysis Components: Interactive Models (Miles et al., 2014b)

From the management perspective, the evaluation focused on the ease of content management, tourist responses received during the trial period, and potential technical challenges that emerged. The evaluation results were analyzed qualitatively to identify the effectiveness of the developed media and to determine necessary improvements. Feedback obtained from the evaluation served as an essential basis for refining the system, strengthening the digital promotion strategy, and ensuring the sustainable and independent use of the technology by the partner in the future.

### 3. RESULTS AND DISCUSSION

#### Results

#### Initial observations at the Kecak Dance performance location and informal interviews with managers and tourists

Preliminary observations were conducted directly at the Kecak Dance performance site at Pura Luhur Uluwatu to obtain a comprehensive understanding of on-site conditions and visitor flow patterns.

The community engagement team observed how tourists moved within the performance area, the points where they tended to gather, and the informational or promotional media available on site. The observation also included visual documentation of potential locations suitable for QR code installation to ensure accessibility without disrupting tourist activities. This information served as an essential basis for designing the layout of the digital media to be developed.

In addition to observation, informal interviews were conducted with the performance management, namely Sekaa Karang Boma, to gain deeper insight into the promotional and operational strategies that had been implemented, their effectiveness, and the challenges encountered. The management explained that promotion was generally conducted through word of mouth, printed pamphlets, digital channels managed by two social media and reservation officers, manual reservation systems, and through travel agents that had carried out extensive digital promotion via websites such as GetYourGuide and Your Bali Drivers (Figure 4).



**Figure 4.** Social media screenshots owned by partners

Cost efficiency in operational activities constitutes an important consideration, particularly for cultural communities such as Sekaa Karang Boma, which independently manages the Kecak Dance performance. One of the operational components that continues to incur considerable expenses is the printing of pamphlets containing brief information about the storyline of the Kecak Dance performance, with detailed figures as presented in the Table 3.

**Table 3.** Social media screenshots owned by partners

<b>Description on Pamphlets</b>	<b>Total rim in 1 (one) year</b>	<b>Expenses per rim</b>	<b>Annual expenses</b>
Indonesian Pamphlet	20 rims	Rp 175,000,00	Rp 3,500,000,00
English Pamphlet	20 rims	Rp 175,000,00	Rp 3,500,000,00
Pamphlets in 10 other languages	120 rims	Rp 175,000,00	Rp 21,000,000,00

Although these pamphlets serve an educational function for tourists, their production entails considerable costs, particularly when they must be periodically updated and printed in approximately 13 foreign languages to accommodate both domestic and international visitors. In addition, paper-based pamphlets are easily damaged, have limited reach, and are not environmentally sustainable, as they contribute to paper waste in the tourist area. Observational findings indicate that many visitors show little interest in retaining the printed pamphlets, with a significant number being discarded or used as scrap paper.

Based on interviews with the management, the outdated design may be one factor contributing to the limited visitor interest in reading the pamphlet content (Figure 5). Furthermore, the content primarily focuses on the storyline as a synopsis of the Kecak Dance, without providing additional information such as detailed descriptions of the performers or visual illustrations that could help audiences better understand the narrative they are about to watch.



**Figure 5.** Scan of printed pamphlet (<https://bit.ly/PamfletCetakKecakDance>)

Informal interviews were also conducted with several tourists in the performance area, both domestic and international, to understand their habits in seeking information about cultural tourism. Several visitors stated that they felt more comfortable accessing information online prior to their visit and would greatly benefit from the availability of informative and easily accessible digital media on site. Moreover, most of them expressed interest in the use of QR codes as a quick and practical means of obtaining information. Feedback and responses from these tourists provided valuable input in determining the content design and key features of the website, as well as in formulating an effective QR code placement strategy aligned with visitor behavior in the field.

In this context, the use of digital media such as a website accessible through QR codes represents a strategic solution to reduce the recurring costs associated with pamphlet printing. Information regarding the Kecak Dance storyline, including the characters, the meaning of movements, and their connection to Balinese cultural values, can be presented more comprehensively, attractively, and sustainably through a digital platform. By creating the content once and integrating it into the website, the information can be widely accessed without the need for repeated printing. This approach not only supports cost efficiency for the management but also enhances the visitor experience by providing more interactive and informative media for understanding the performance.

### **Design and development of digital media in the form of websites and QR codes**

The implementation mechanism of this project is divided into several stages, namely: (1) Ideation and research; (2) Planning and product definition; (3) Prototyping; (4) Design; (5) Testing; and (6) Product development and launch (Arora, 2024).

The first stage is ideation and research. Project members collect ideas, which are then discussed to determine which concepts will be selected and further developed into the project (Figure 6). This stage also involves conducting research to identify the needs of the partner and aligning them with the competencies and capabilities of the project team.

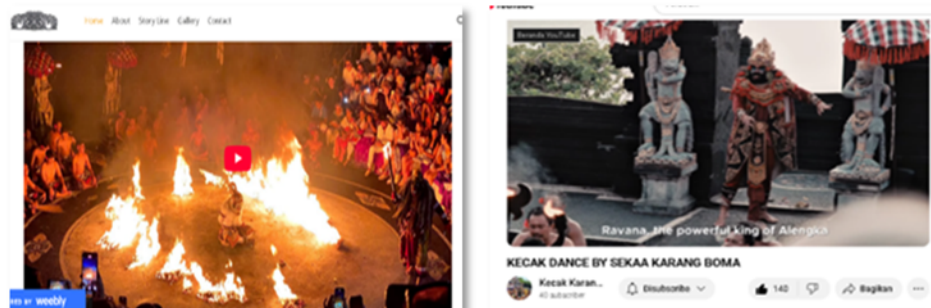


**Figure 6.** Interview with partners

It is known that information related to the Kecak Dance has been disseminated and made publicly accessible through social media platforms managed by Sekaa Karang Boma. However, these platforms have not been optimally managed or regularly updated in accordance with market needs. The management also does not monitor visitor traffic from social media and lacks access to analytics data for tracking engagement across their existing promotional media.

The second stage involves product concept development. At this stage, project members design the concept of the product to be developed. The project output consists of digitalizing information through a website, which is subsequently distributed in the form of a QR code. This stage includes designing the website interface, determining the informational content to be presented, and defining the available features. The design and development of digital media in this activity focus on creating an informative website integrated with QR code technology to provide quick access for users, particularly tourists. The website is developed using a user-friendly approach that emphasizes functionality, visual aesthetics, and ease of navigation. Considering that most tourists rely on mobile devices, the website is optimized to be responsive and fully accessible via smartphones without requiring the installation of additional applications. The objective is to ensure that cultural information can be easily accessed by users from diverse technological backgrounds.

In the third stage, prototyping, project members develop a more detailed and structured plan. They also produce preliminary sketches of the product to identify potential shortcomings and conduct evaluations prior to further development. The fourth stage involves product design, during which project members create a mock-up of the website interface to be developed. The creation of the mock-up requires careful consideration of several aspects, including the information to be displayed and the features to be provided. At this stage, trial and error is highly possible to ensure that the final product aligns with the partner's expectations.



**Figure 7.** Video creation and uploading of videos to YouTube to be embedded on websites

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The website content encompasses comprehensive and educational information regarding the Kecak Dance performance. This includes the historical background and philosophical meaning of the Kecak Dance, the characters within the storyline, the daily performance schedule, and the profile of Sekaa Karang Boma as the managing organization. In addition, visual documentation such as photographs and short videos from previous performances is incorporated to provide prospective audiences with a realistic overview (Figure 7). Supplementary information, including audience guidelines, dress code requirements, and a location access map, is also provided to facilitate visitors in planning their visit.

The visual design of the website incorporates distinctive Balinese aesthetic elements, such as traditional motifs, tropical natural color palettes combined with a white background to enhance readability, and typography that reflects a local cultural nuance. This approach aims to create a visual identity aligned with the character of the cultural attraction presented on site, allowing the digital experience to harmonize with the atmosphere of Balinese culture. In addition, the website content is presented bilingually in Indonesian and English to simultaneously accommodate domestic and international visitors.



**Figure 8.** Improved information on the website regarding character introduction and storyline in multiple languages

To facilitate tourists in understanding the storyline, audio versions in multiple languages are embedded on the website beneath the narrative of each scene (Figure 8). This feature is informed by the growing popularity of audiobooks among the public (Dali & Brochu, 2020) and the tendency of visitors to access information in audio, visual, or audio-visual formats. However, due to technical limitations, the audio files are currently embedded and linked to an external Google Drive folder.

To indirectly promote the Kecak Dance on a broader scale, a WhatsApp messaging feature was also developed with an automated message format to facilitate reservation management for both visitors and administrators. A shortened link generated through bit.ly was embedded on the website as well as on Instagram, thereby not only simplifying access to information but also providing a one-stop service experience when users access the website.

After the design and content development stages were completed, a unique QR code was generated and directly linked to the website's main page. The QR code was produced in various sizes to allow flexible printing and placement at high-traffic entrance points frequently accessed by visitors, as well as for direct distribution to audiences before the performance began. The objective was to enable tourists to access real-time information about the performance storyline, even during the show, without disrupting the event. In this development process, attention was given not only to visual presentation and accessibility but also to sustainability. The community engagement team provided technical

guidance and basic training to Sekaa Karang Boma to ensure their ability to independently update content, particularly in the event of schedule changes or the addition of new materials. Thus, website management does not rely entirely on the development team but can be sustainably maintained by the partner as part of a technology-based cultural promotion empowerment effort.

The fifth stage is testing. After the mock-up was approved, the product was developed and subsequently tested to ensure that all features functioned properly and contained accurate information. The final stage is product development and launch. Once the developed product was verified to be error-free, it was ready for public release. The informational website developed in this project can be accessed at [<https://bit.ly/KecakDanceUluwatuBali>].

### **Installing QR codes at strategic points in tourist areas**

The installation of QR codes was strategically carried out at various points characterized by high levels of interaction between tourists and the surrounding environment within the Pura Luhur Uluwatu area. The selection of these locations was based on observational findings regarding visitor movement patterns and moments when tourists tended to seek information or pause during their visit. Key locations included the main entrance of the tourist area, ticket counters, the waiting area prior to the performance, the pathway leading to the Kecak Dance stage, and several resting spots frequently used for photography. The primary considerations in QR code placement were optimal visibility and ease of access without disrupting tourist activities.

To ensure durability in outdoor conditions, the QR codes were printed in sufficiently large sizes and mounted on weather-resistant materials such as acrylic boards or waterproof laminated stickers (Figure 8). This measure was intended to maintain usability over an extended period despite exposure to sunlight and rain. In addition, each QR code was accompanied by brief instructions in Indonesian and English to ensure clarity for both local and international visitors. The visual presentation was designed to harmonize with the Balinese cultural ambiance while remaining functionally prominent, thereby attracting attention without compromising the aesthetic integrity of the tourist area.



**Figure 9.** Printing a QR code that is connected to an information website about the Kecak Dance  
**Figure 10.** QR code installation

Sekaa Karang Boma, as the performance management body, was actively involved in the installation process, from identifying strategic locations to supervising and maintaining the installed informational media. This involvement is essential to ensure the sustainable utilization of QR codes

as tools for cultural tourism promotion and education. The presence of QR codes at these locations is expected to encourage tourists to directly engage with digital information about the Kecak Dance, enhance their understanding of the cultural values presented, and convey a professional image of local cultural attraction management that is increasingly adaptive to technological advancements.

### **Socialization and training for Sekaa Karang Boma regarding the use and management of the website**

The socialization and training conducted for Sekaa Karang Boma constituted a strategic stage in the technology transfer process as well as an effort to empower the local partner to actively manage digital promotional media. At this stage, management members were introduced to the concept and urgency of digitalizing cultural promotion, including the significant role of technology in efficiently reaching a broader audience (Figure 11).

The activity began with a discussion session addressing the promotional challenges previously encountered, followed by an introduction to the benefits of utilizing the website and QR codes designed in accordance with visitor characteristics and the operational needs of the performance. This foundational knowledge was essential to foster critical awareness among the management regarding how technology can serve as a tool to enhance the attractiveness and professionalism of the Kecak Dance performance.

The training focused on practical technical aspects, covering topics such as the structure of the website interface, navigation of key features, and procedures for updating content through a simplified Content Management System. Participants were trained to upload photo and video documentation, update performance schedules, and create situational announcements as needed. The training also included simulations of QR code usage by visitors, including guidance on interpreting user interaction statistics and addressing potential technical issues in the field. Through a hands-on training model combined with intensive mentoring, the partner was encouraged to build confidence and competence in independently managing digital media operations.



**Figure 11.** Socialization and training for Sekaa Karang Boma regarding the use and management of the website

In its implementation, the training, conducted over several stages and meetings, also fostered a collaborative spirit among members of Sekaa Karang Boma, as reflected in participants' enthusiasm to directly practice all stages of website management and their prompt responses to the case studies provided. This active engagement indicates that the training process was not unidirectional, but rather involved an exchange of ideas and experiences that enriched their promotional strategies. It is expected that, through the skills transferred during this training, the management will be able to routinely

update content, respond promptly to visitor interactions, and adapt to evolving informational needs. Accordingly, the digital media developed is intended not merely as a one-time promotional tool, but as a long-term strategic asset in strengthening the presence of the Kecak Dance as a leading cultural attraction at Pura Luhur Uluwatu. The socialization and training materials can be accessed through the following link: <https://bit.ly/MateriPelatihanWebsiteKarangBoma>

### **Evaluation through interviews and short questionnaires to users**

An evaluation of the implementation of the website- and QR code-based digital promotional media was conducted as a critical stage to assess the program’s effectiveness and utility, both from the perspective of end users (tourists) and the management (Sekaa Karang Boma). The evaluation employed informal on-site interviews and the distribution of brief questionnaires designed to capture user perceptions, experiences, and feedback. Interviews were conducted after visitors attended the performance or while they were within the tourism area of Pura Luhur Uluwatu. The questions focused on their experience accessing information through the QR code, the ease of website navigation, and the relevance of the information provided in enhancing their understanding of the cultural values embedded in the Kecak Dance.

At present, the QR code can only be displayed at the ticketing point located at the entrance of Pura Luhur Uluwatu, as visitors are required to purchase a separate admission ticket to enter the official tourism destination area. Installation of QR codes at other points within the site has not yet been feasible due to the presence of wild monkeys roaming the area, which poses a risk to the durability and security of the media.

Based on in-depth discussions with the Kecak Dance management, a strategic adjustment has been proposed: embedding the QR code directly on the performance ticket. This approach would allow visitors who have already booked or purchased tickets to access the storyline and related information in advance. In addition, this strategy contributes to cost efficiency by reducing the need to reprint pamphlets with updated designs, QR codes, and additional information, thereby aligning operational savings with the broader objective of sustainable digital transformation in cultural promotion.

**Table 4.** Questionnaire results from visitors regarding their perceptions of the use of the Kecak Dance introduction website

<b>Statements</b>	<b>Avg. Score</b>	<b>Category</b>
The website is easily accessible through the QR code provided.	4,25	Very Good
The website's navigation is easy to understand.	4,18	Good
The information on the website helps understand the history and meaning of the Kecak Dance.	4,32	Very Good
The website's visual design is attractive and reflects Balinese culture.	4,10	Good
The website provides more comprehensive information than printed brochures.	4,22	Very Good
The QR code is easy to find at tourist attractions.	4,08	Good
I felt more interested in watching the Kecak Dance after reading the website's content.	4,15	Good
I would recommend this website to other tourists.	4,05	Good
The website is easily accessible on mobile devices.	4,28	Very Good
I hope other cultural attractions also have similar digital information.	4,30	Very Good
<b>Average</b>	<b>4,193</b>	<b>Good</b>

The questionnaire distributed to visitors covered multiple evaluation dimensions, including visual design, loading speed, content quality, and the alignment of information with visitor expectations. The instrument combined closed-ended questions using a Likert scale with open-ended questions to accommodate more nuanced feedback. On the managerial side, Sekaa Karang Boma was involved through structured interviews addressing their experience in managing the system, responding to visitors, and handling technical constraints encountered during the pilot phase. The evaluation also examined the extent to which the training program enhanced managerial capacity to independently operate and optimize the digital platform.

Findings derived from questionnaires and interviews with 114 tourist respondents indicate a predominantly positive perception of the developed digital media (Table 4). The average scores for accessibility, visual presentation, ease of navigation, and content relevance fell within the "Good" to "Very Good" categories. The highest score (4.32) was recorded for the statement that the website information helped visitors understand the history and meaning of the Kecak Dance, followed closely by the expectation that other cultural attractions should provide similar digital information (4.30). These results affirm that information digitalization not only strengthens the professional image of the management but also enhances cultural comprehension and overall visitor satisfaction among both domestic and international tourists. However, the lowest score (4.05), related to visitors' intention to recommend the website to other tourists, warrants further strategic attention. Although still within a positive range, this indicator suggests room for improvement in promotional outreach, user engagement strategies, and possibly the enhancement of distinctive value propositions that could increase word-of-mouth diffusion and digital advocacy.

All data obtained from interviews and questionnaires were analyzed using a descriptive qualitative approach, applying the data reduction, data display, and conclusion-drawing/verification framework proposed by [Miles et al. \(2014\)](#). This analytical model enabled systematic organization and interpretation of findings to ensure methodological rigor.

The analysis aimed to identify key themes reflecting both the strengths and limitations of the digital promotional system that had been developed. Through data reduction, relevant patterns and recurring responses were categorized; through data display, findings were structured to facilitate comparative interpretation; and through conclusion drawing, insights were verified to ensure consistency across respondent groups.

The results of this evaluation process serve as an evidence-based foundation for system refinement, encompassing improvements in visual design, functional performance, and the sustainability of content management practices. Furthermore, stakeholder feedback informs the formulation of more effective long-term promotional strategies, while reinforcing the capacity of the local partner to utilize digital technology independently and adaptively in introducing cultural heritage to a broader audience.

## **Discussion**

This community service initiative demonstrates that information digitalization through website development and QR code utilization has significant potential to enhance the quality of cultural tourism promotion and visitor experience, particularly for the Kecak Dance performance at Pura Luhur Uluwatu. Initial observations and interviews indicated that prior to the intervention, management relied primarily on printed materials and direct promotion, which were inefficient, quickly outdated, and environmentally unfriendly. Therefore, the development of an interactive website providing in-depth information on the history, philosophy, and performance procedures of the Kecak Dance represented a strategic response

to tourists' needs for fast, accurate, and contextual information. This aligns with the growing preference of travelers to use mobile devices to access information during their visits (Lauw et al., 2022; Negara & Sagita, 2021).

The implementation of QR codes installed at strategic points, such as the ticket counter, has facilitated direct access to the website. The involvement of Sekaa Karang Boma in identifying installation locations further strengthened their sense of ownership over the developed digital media. The use of weather-resistant materials such as acrylic and a bilingual design also ensured sustainability and accessibility of information in an outdoor setting. However, large-scale installation has not yet been feasible due to the presence of numerous wild monkeys inhabiting the area of Pura Luhur Uluwatu. Despite this limitation, the approach has significantly reduced pamphlet printing costs and provided an environmentally friendly alternative for information dissemination. The challenge of broader QR code placement remains unresolved, as unmonitored signage risks being damaged by the monkeys roaming the site.

The socialization and training provided to the management, particularly members of Sekaa Karang Boma, resulted in increased capacity in content management and a stronger understanding of the benefits of digital promotion. Training sessions that incorporated QR code simulations and hands-on practice enhanced the managers' ability to independently update website information. The transformation from passive users to active administrators serves as a key indicator that the introduced technology was not merely a temporary intervention, but one that can be sustainably adopted by the partner. This participatory approach represents a replicable model for similar initiatives in other contexts.

Overall, this community service activity not only addressed promotional needs and information efficiency, but also created broader opportunities for strengthening digital literacy at the cultural community level. Close collaboration with Sekaa Karang Boma as the performance organizer was a critical success factor, as they were actively involved in all stages, from design and implementation to evaluation. Moving forward, this success can serve as a reference for supporting other cultural attractions to become more adaptive to advancements in information technology, while preserving the local values that define the identity of Balinese cultural tourism.

#### **4. CONCLUSION AND RECOMMENDATIONS**

Based on the results of this community service activity, it can be concluded that the primary objective, to enhance the effectiveness of promotion and information dissemination for the Kecak Dance performance at Pura Luhur Uluwatu through media digitalization—has been achieved. The implementation of a website integrated with QR codes has proven capable of expanding information access in a fast, practical, and sustainable manner, while simultaneously reducing reliance on less efficient printed media. Evaluation results obtained through questionnaires and interviews indicate that tourists provided positive assessments regarding accessibility, visual presentation, ease of navigation, and content relevance. The website was considered helpful in improving visitors' understanding of the cultural values embedded in the Kecak Dance and in enhancing the overall quality of their visit experience. This demonstrates that the developed digital media functions not only as a promotional tool but also as a medium for cultural education. Furthermore, the socialization and training activities conducted for Sekaa Karang Boma supported the empowerment objective by strengthening their capacity to independently and sustainably manage and utilize digital promotional media. Thus, this initiative has generated tangible impacts in reinforcing the promotion of local cultural attractions while simultaneously enhancing community competence in responding to digital transformation within the tourism sector.

As a follow-up to this initiative, it is recommended that Sekaa Karang Boma consistently update website content in accordance with performance schedules and other relevant developments to maintain its relevance and attractiveness for visitors. Regular content management is essential to ensure that the platform remains accurate, dynamic, and responsive to audience needs. In addition, the development of interactive features, such as online ticket booking, visitor testimonials, or integration with social media platforms could serve as strategic steps to broaden promotional reach and enhance user engagement. Sustainable partnerships with educational institutions, local government, and other tourism stakeholders are also crucial to support technical maintenance and further development of the digital platform. Such collaboration would strengthen the long-term viability of this technology-based cultural preservation strategy while reinforcing the adaptive capacity of the local community within the evolving tourism landscape.

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