MyEventell: Personalized Conference Companion Mobile Application

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ABSTRACT:

In today's fast-paced digital environment, managers efficiently manage conferences, as well as attendees actively engage for professional events' success. MyEventell offers a variety of customized scheduling options, real-time updates of information, speaker information details, and different interactive tools for engagement and for feedback, because it is a personalized mobile application developed well to act as a thorough type of conference companion. The system generates recommendations for smart sessions and personalized agendas. User profiles as well as event metadata constitute what it uses. Key functionalities do include push notifications to provide live changes, networking support as well, and session feedback integration which is further backed through architecture that remains scalable as well as cloud-based. The application is designed with a more user-centric type of interface and with cross-platform support as to ensure both accessibility and flexibility.

Keywords—Conference app, personalized scheduling, attendee engagement, mobile application, cloud computing, real-time updates.

INTRODUCTION:

The increasing number of academic and professional conferences has created a demand for efficient, user-friendly systems that enhance both event management and attendee participation. Traditional platforms often lack mobility and personalization, limiting user engagement and interaction. With the widespread use of smartphones, mobile applications have become essential tools for providing real-time access to schedules, updates, and networking opportunities. Studies have identified the need for a comprehensive mobile-based conference management system that integrates session tracking, personalized scheduling, and paper handling in a unified interface [1]. However, many existing solutions emphasize administrative control over user experience, resulting in applications that are functional but difficult to use or navigate in dynamic event environments. Usability remains a critical concern in mobile app development. Poor interface

design and limited interaction capabilities can significantly reduce the effectiveness of an application, especially when users require quick, intuitive access to information during fast-paced events [2]. Applications that lack adaptability and personalization often fail to meet the expectations of modern users. To address these limitations, this paper presents *MyEventell*, a personalized conference companion mobile application. The app focuses on delivering a user-centric experience with features such as intelligent scheduling, real-time notifications, speaker and session insights, and interactive feedback tools. Built on a scalable, cloud-based architecture, *MyEventell* aims to enhance the overall conference experience by combining robust functionality with high usability and personalization.

LITERATURE REVIEW:

Design-based research (DBR) has been effectively employed in the development of mobile applications, particularly in educational and user-centric domains. This approach combines iterative development, ongoing user feedback, and contextual testing to refine application features and improve usability over time [3]. It enables developers to align system functionalities closely with real-world user requirements, which is particularly relevant in designing dynamic and responsive applications for event or conference settings. Mobile applications developed using DBR methodologies have shown increased adaptability and user satisfaction due to their continuous refinement cycle. The incorporation of real-world user behaviour and feedback into the development process ensures that the product remains practical and user-friendly. These findings emphasize the potential of applying DBR principles in the development of mobile solutions like conference companion apps that must adapt to diverse user preferences and usage environments. In addition, socially-aware recommendation systems have emerged as a valuable tool in enhancing user experience in event contexts. These systems utilize users' social network data, behavioural patterns, and contextual information to deliver personalized recommendations [4]. By considering not only the users' interests but also their social proximity to others, such systems significantly improve the relevance of suggestions, such as venue or session recommendations during conferences. Context-aware computing, when integrated with mobile platforms, enables the system to respond dynamically to changes in user location, time, and interactions. These capabilities are especially beneficial in large-scale events where personalized navigation and timely recommendations can enhance the overall participant experience. The use of machine learning and real-time data processing in such systems further supports intelligent decision-making within the application.

PROBLEM STATEMENT:

The organization and management of social gatherings, whether formal events or casual meetups, face numerous challenges in the digital age. Common issues include fragmented communication between organizers and attendees, difficulties in sending real-time notifications, lack of centralized platforms for managing attendee information, and inadequate tools for tracking participation and feedback. Traditional methods—such as manual coordination, phone calls, social media groups, or basic messaging platforms—often lead to miscommunication, scheduling conflicts, and diminished attendee engagement. Despite the widespread use of smartphones and mobile technologies, many existing applications lack the comprehensive features required to handle the end-to-end lifecycle of event management. These tools often fail to integrate core functionalities such as personalized invitations, RSVP tracking, dynamic event updates, location-based reminders, and post-event feedback in a seamless and user-friendly manner. Additionally, security, data privacy, and scalability remain under-addressed in many existing solutions. There is a pressing need for a dedicated mobile application that can streamline the entire process of organizing social gatherings—from planning and promotion to real-time interaction and post-event analysis. Such an application should be intuitive, scalable, and capable of adapting to various event types and user preferences. Addressing these challenges is essential to improve coordination efficiency, boost participant satisfaction, and leverage mobile technology for smarter event management in both personal and professional settings [5].

METHODOLOGY:

The proposed system is a mobile-based event management application designed to streamline the process of event creation, participation, and coordination. The development methodology integrates user-cantered design principles and context-aware recommendation models to improve user engagement and experience. The overall architecture is illustrated in the system flowchart, detailing the logical steps and user interactions.

The methodology can be divided into the following core components:

User Registration and Dashboard Access: Users begin by registering or logging into the application. This step ensures authentication and profile-based customization, aligning with collaborative platform structures found effective in MICE (Meetings, Incentives, Conferences, and Exhibitions) ecosystems.

Event Management and Personalization: Registered users can manage their events through features such as edit and delete options. The application supports both host-side and attendee-side functionalities, enabling dual interaction paths. This participatory design enhances collaboration and event personalization, critical components in digital event ecosystems.

Event Creation and Input: Once authenticated, users are directed to a dashboard where they can create events by providing details such as date, time, venue, and description. These inputs are stored in a backend database and tied to the user's profile. This structured event creation process mirrors modular systems proposed in smart event ecosystems, enabling streamlined input and data sharing [6].

Event Recommendation and Notification: Upon event creation, users receive intelligent suggestions based on their location, preferences, and prior activity. These suggestions are driven by context-aware venue recommendation models such as GEVR (Group Event Venue Recommendation), which considers the preferences and mobility of multiple users to suggest optimal venues. The system also pushes notifications for upcoming events and real-time updates.

Registration and Participation: Users can view a list of upcoming events and register for the ones of interest. The application keeps track of participant details and dynamically adjusts available information; mimicking group-based mobile interaction models found in ubiquitous computing literature [7].

Session Termination: After managing or attending events, users can log out securely. Session data is cleared from the frontend but preserved in the database for analytics and personalized recommendations in future sessions.

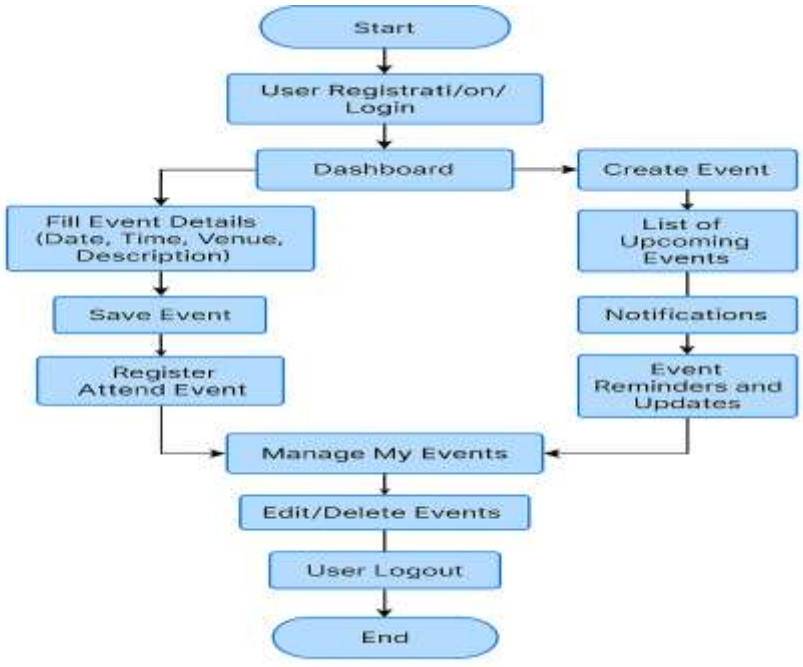

Figure 1: Flowchart of Event Management Mobile Application

RELATED WORK:

Several studies have explored the design and implementation of mobile applications for event management, each focusing on various aspects such as intelligent venue recommendations, behavioural engagement, semantic structuring, and real-time synchronization. The following works illustrate key developments that inform the foundation of the present study.

Context-Aware Venue Recommendation Systems (2019): A system was introduced to recommend event venues for groups of mobile users using collaborative filtering and context-aware data. It accounted for user mobility and preferences, improving satisfaction through intelligent group-based suggestions [8].

Behavioural Analysis Through Mobile Event Apps (2022): A study applied the Stimulus-Organism-Response (S-O-R) framework to investigate the influence of mobile app features on users' behavioural intentions in virtual race settings. Factors such as interactivity and informativeness were found to significantly shape user engagement [9].

Ontology-Based Event Management Systems (2017): An ontology-driven mobile application was developed to enhance event categorization and information retrieval. The semantic structure supported automated handling of event data and enabled improved personalization and efficiency [10].

Real-Time Data Monitoring Using Mobile Platforms (2020): Though unrelated to events directly, research demonstrated how mobile applications can be used to monitor seasonal and environmental data in real time. The study illustrated the capability of mobile systems to deliver consistent, reliable analytics that can be adapted for event tracking [11].

Android-Based Event Management Applications (2018): A mobile solution focused on managing event operations such as scheduling, registration, and notifications. The application featured a simple interface and real-time synchronization, aiming to enhance user experience and streamline organizational workflows [12].

RESULTS:

The study presented a comprehensive analysis of event-based mobile social networks, focusing on the integration of services, technologies, and applications [13]. It was found that incorporating real-time event detection and context-awareness into mobile social networking platforms significantly improves user engagement and the relevance of shared information. Event-driven communication was shown to outperform static social models in terms of responsiveness and scalability. The results emphasized the importance of enabling technologies such as mobile edge computing, cloud platforms, and social sensing, which collectively enhance the delivery of dynamic, personalized services. Moreover, the integration of location-based services and behavioural analytics enabled predictive modelling of user interests and effective dissemination of event-related content. The study also identified key application domains, including social event recommendation, emergency coordination, and community-driven urban sensing. These use cases demonstrated the potential of event-based architectures to support both spontaneous and organized interactions in mobile environments, highlighting a scalable and adaptive foundation for future mobile social networking systems.

DISCUSSIONS:

The development of personalized mobile applications for event management has gained significant attention in recent years, with a focus on enhancing user experience and improving event coordination. In the context of MyEventell, a personalized conference companion mobile app, the integration of crowd risk mitigation technologies plays a crucial role in managing large-scale events. Research on crowd management during urban sports events, such as the case study of the collegiate football event in Indianapolis, demonstrates the effectiveness of these technologies in ensuring safety while maintaining event flow [14]. This insight is directly applicable to conferences, where similar crowd-related concerns may arise in terms of navigation, session scheduling, and emergency response. The framework proposed by Thomas et al. in the reference model-based event management system emphasizes the importance of a standardized approach to handling

diverse event management processes [15]. MyEventell aligns with this model by offering personalized features such as real-time scheduling updates, venue navigation assistance, and attendee interaction facilitation. This model allows for the systematic integration of various event components, from registration to feedback collection, ensuring a streamlined experience for both organizers and participants. By applying such models and technologies, MyEventell stands to not only improve the overall experience for conference attendees but also mitigate risks associated with crowd movement and overcrowding. The app's ability to provide real-time updates, personalized schedules, and notifications can significantly reduce event-related stress and enhance attendee satisfaction. Additionally, the integration of location-based services further ensures the safety and security of participants, addressing the growing concern of crowd control in large gatherings. The potential of MyEventell to serve as a comprehensive tool for event management lies in its scalability. By incorporating best practices from both the sports event management and reference model-based approaches, the app can be customized for a variety of event types, from academic conferences to corporate summits. This adaptability allows it to meet the specific needs of different audiences while maintaining efficiency in operation.

CONCLUSION:

In this paper, the development of MyEventell, a personalized conference companion mobile app, has been presented as a solution to the challenges faced by event organizers and attendees. By integrating advanced features such as real-time scheduling, personalized notifications, and venue navigation, MyEventell aims to improve attendee experience and streamline event management. Furthermore, leveraging crowd risk mitigation technologies and reference model-based event management frameworks ensures the app's applicability to various event types, from academic conferences to corporate meetings. The findings from previous research, such as Razali et al.'s work on mobile event management systems, highlight the significant potential of mobile applications to optimize event operations and attendee engagement [16]. This aligns with MyEventell objective to create a comprehensive and adaptable platform that enhances event coordination while prioritizing safety and personalization. By addressing key concerns like crowd control, information dissemination, and user interactivity, MyEventell represents a significant step forward in event management technology. Looking ahead, future work could focus on expanding the app's functionality to support virtual and hybrid events, enabling seamless integration between physical and online experiences. Additionally, the inclusion of advanced analytics and AI-driven personalization features could further enhance MyEventell ability to cater to the diverse needs of event participants, making it a powerful tool for the event management industry.

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