i-SPiKE 2023

INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION

"Optimizing Innovation in Knowledge, Education and Design"

EXTENDED ABSTRACT

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Assalamualaikum warahmatullahi wabarakatuh,

First and foremost, I would like to express my gratitude to the organizing committee of i-Spike 2023 for their tremendous efforts in bringing this online competition a reality . I must extend my congratulations to the committee for successfully delivering on their promise to make i-Spike 2023 a meaningful event for academics worldwide.

The theme for this event, 'Optimizing Innovation in Knowledge, Education, and Design,' is both timely and highly relevant in today's world, especially at the tertiary level. Innovation plays a central role in our daily lives, offering new solutions for products, processes, and services By adopting a strategic approach to 'Optimizing Innovation in Knowledge, Education, and Design,' we have the potential to enhance support for learners and educators, while also expanding opportunities for learner engagement, interactivity, and access to education.

I am awed by the magnitude and multitude of participants in this competition. I am also confident that all the innovations presented have provided valuable insights into the significance of innovative and advanced teaching materials in promoting sustainable development for the betterment of teaching and learning. Hopefully, this will mark the beginning of a long series of i-Spike events in the future.

It is also my hope that you find i-Spike 2023 to be an excellent platform for learning, sharing, and collaboration. Once again, I want to thank all the committee members of i-Spike 2023 for their hard work in making this event a reality I would also like to extend my congratulations to all the winners, and I hope that each of you will successfully achieve your intended goals through your participation in this competition.

Professor Dr. Roshima Haji Said
RECTOR
UiTM KEDAH BRANCH

WELCOME MESSAGE (i-SPiKE 2023 CHAIR)

We are looking forward to welcoming you to the 3rd International Exhibition & Symposium on Productivity, Innovation, Knowledge, and Education 2023 (i-SPiKE 2023). Your presence here is a clear, crystal-clear testimony to the importance you place on the research and innovation arena. The theme of this year's Innovation is "*Optimizing Innovation in Knowledge, Education, & Design*". We believe that the presentations by the distinguished innovators will contribute immensely to a deeper understanding of the current issues in relation to the theme.

i-SPiKE 2023 offers a platform for nurturing the next generation of innovators and fostering cutting-edge innovations at the crossroads of collaboration, creativity, and enthusiasm. We enthusiastically welcome junior and young inventors from schools and universities, as well as local and foreign academicians and industry professionals, to showcase their innovative products and engage in knowledge sharing. All submissions have been rigorously evaluated by expert juries comprising professionals from both industry and academia.

On behalf of the conference organisers, I would like to extend our sincere thanks for your participation, and we hope you enjoy the event. A special note of appreciation goes out to all the committee members of i-SPiKE 2023; your dedication and hard work are greatly appreciated.

Dr. Junaida Ismail
Chair
3rdInternational Exhibition & Symposium Productivity, Innovation, Knowledge, and Education 2023 (i-SPiKE 2023)

TRAVEL EYE – NEW WAY OF TRAVELLING

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ABSTRACT

With technological advancements, travel applications offer the ability to provide personalized support, information, and assistance to disabled travelers in organizing their journeys and dealing with unfamiliar environments. These apps can assist people with impairments in making travel decisions and choosing destinations that can meet their specific needs. Travel Eye is an app designed specifically to accompany those who are unable to travel due to impairments. Travel Eye is different from any other app as it provides unique support to various types of impaired persons who require specific assistance. These apps offer a variety of features to make traveling easier for impaired people who are concerned with their specific needs. Travel Eye's essential strength is that it features an innovative feature that allows users to get a tour guide through a "video call" to assist them while touring specific locations. The speech recognition engine in the app is so advanced that it can dictate and translate calls in different languages. The tour guide will guide impaired users with different typesof disabilities, such as deaf, mute, or vision impaired, using either verbal or sign language. Another feature included in Travel Eye is a map that can show major attractions within the country the user visits. The map also automatically displays places and maps that are accessible to people with disabilities, such as wheelchair-accessible hotels, landmarks, restaurants, public restrooms, and other premises. These features can assist people with disabilities in navigating unfamiliar surroundings and finding accessible paths, thus reaching their destinations faster. This incredible Travel Eye app also allows users to arrange a flight, hotel, or rental car if necessary. Travel apps with these features have the potential to increase the accessibility and enjoyment of travel for individuals with disabilities, resulting in a more inclusive and diverse travel community.

Keywords: Travel Assistance Application, Special Needs, Impaired Traveler, Accessibility, Directory

INTRODUCTION

In Malaysia, 40,743 deaf individual registered with Jabatan Kebajikan Malaysia (JKM) latest by December 2021 (Wani Muthiah, 2022). A mobile application like Travel Eye is the ultimate app designed to empower disabled travelers with personalized support and assistance. With advanced features catered to specific impairments, Travel Eye revolutionizesthe way people with disabilities plan and navigate their journeys. Its innovative "video call" tour guide connects users with expert assistance in real-time, using speech recognition and translation capabilities. The app's comprehensive map emphasizes accessible locations such as hotels, attractions, tourist landmarks, and restaurants, ensuring a smooth and seamless travel experience. With the ability to arrange flights, hotels, and rental cars, Travel Eye opensup a world of possibilities for disabled people, fostering inclusiveness and creating a more diverse travel community.

PROBLEM STATEMENT

Disabled people often find it difficult to travel due to the lack of accessibility conditions in common areas of tourism, making it difficult for them to visit certain locations. According to Daniels et. al. (2005), proper accommodation is essential for tourists with disabilities to enjoy a comfortable stay. Accessibility could influence impaired visitors' decisions to visit a certain location because it can provide them with positive or negative experiences throughout their journey. Furthermore, people with disabilities frequently avoid travel due to a lack of information on how to travel safely to non-disability-friendly locations. According to Agovino et. al. (2017), disabled persons require basic information such as hotel star ratingand type of service, as well as additional information, to make the best decision. An application like Travel Eye can help them gain this information before making a decision. Moreover, a lack of communication between disabled tourists and stakeholders can lead to a lack of understanding of the needs of disabled tourists in tourism destinations (Shalini & Seow, 2015). Responsible parties should provide accessible mobile applications to assist disabled tourists in their tourist activities, making them easier to access from anywhere. This is a necessary step in providing dependable and simple-to-use applications to assist people with specific needs in their tourist activities.

OBJECTIVES

The Travel Eye application provides a convenient way to help disabled people travel around the world without hesitation and experience better trips, especially because it contains information that they need before or during travel. Thus, several objectives of this study are mentioned below to help save more time, increase the rate of disabled people traveling without any obstacles or challenges, and improve the journey experience for them. The objectives include:

i) Provide information on the accessibility features of various travel-related amenities and locations.
ii) Accompany the disabled traveller everywhere with step-by-step navigation and routing instructions.
iii) Provide a platform for users to request disability-specific assistance or support services.
iv) Facilitate travellers with a translation platform according to the country visited.

NOVELTY & ORIGINALITY

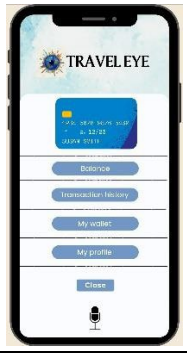
Travel Eye has a variety of features, including maps with audio directions, soundtracks of the history behind visited locations, and popular places with disabled-friendly infrastructure. As previously stated, Travel Eye is a mobile application for impaired people, thus disabled users, such as those with mobility limitations, vision impairments, and hearing, can benefit from it. A visually impaired user, for example, will have an automatic audio tour guide by default. Furthermore, because it includes Google Maps, a tour guide, and Google Assistance for Android users or Siri for iOS users, this travel application is engaging and easy to use for impaired travellers. In addition, Travel Eye has integrated AI-powered language translation and communication features to help travelers with disabilities communicate with locals who may not speak their native language or be familiar with sign language. This feature can assist in bridging communication gaps and enable a more inclusive travel experience, especially when traveling abroad. The app also assists hearing-impaired users in ordering food by allowing them to scan the room service menu on their phones while still in their rooms and link directly to the room service operator, which is very useful in hotels. Another feature in the app is a sensor that connects to the user's phone and lights up when the doorbell rings. It enhances the hearing-impaired user's awareness of their surroundings.

METHOD OF USING TRAVEL EYE

Travel Eye is an app to accompany and assist travelers with disabilities. Table 1 shows the method of using the app and utilizing the features provided by the app.

Table 1. The Function of Travel Eye Apps

	Step 1: Install the Travel Eye app in the Google Play store or Apple app store.		Step 6: The service features different types of assistance to help users while traveling such as tour guides,translators, and disabled- friendly facilities.
	Step 2: Log in to the app or sign up for first-time users.		Step 7: Users can choose any tour guide available or recorded guide.

	Step 3: Choose the language, country, and type of disability. The microphone icon below can voice out every option the app shows and function as Google Assistant or Siri so users can speak their options on the screen.		Step 8: Once the user chooses their tour guide, the user can interact with the tour guide either using sign language or speaking via video calling.The apps also operates basic options such as a pausebutton, changing the camera angle to front or back, and ending the call.
	Step 4: Choose the type of user's disability for the app to generate features to assist them.		Step 9: Travel Eye can also show users disabled-friendly facilities at their destination. This can be done when the user searches the facilities in the search button or push the microphone below.
	Step 5: Choose any features to help the user to travel such as booking a flight, car rental, or hotel, choosing packages available, services such as scanning a menu, and turning on the light sensor.		Step 10: The app can be used as a digital wallet, so users don't have to hold a lot of cash in hand. In addition, users can add up to 2 credit cards or debit cards in one app.

COMMERCIALIZATION

According to Eric Dickmann (2023), marketing can perceive the value of a product and build a strong brand image. The target market for Travel Eye can be focused on the demographics of the target market. The targeted consumer's scope is small and focuses only on targeting people with disabilities, and families with disabled members. The targeted customers' age range for using this app is those who are 18 years old and above that can travel. It is suitable for this age range because Travel Eye is a user-friendly and easy to use for disabled travellers. According to Disability: IN (2019), 11.1% of Malaysians above 18 years old have disabilities and approximately only 4,500 of them participated in the workforce. This means that most of them can travel on their own because they can support themselves to travel anywhere. This app also should be downloaded on every gadget. Because it can be used not only for users with disabilities but also by normal users. Various features in this app can be used for the normal user as a traveling app to assist them while traveling. According to K. V. Kalimuthu et. al. (2023), a person with disabilities is hampered by the major problem of accessible tourism, which restricts travel. Downloading this app worldwide could increase thenumber of facilities for disabled travellers and raise awareness for developers to take serious action when developing facilities such as parks, malls, and accommodations.

CONCLUSION

In summary, Travel Eye is a mobile application that provides support and assistance for disabled travellers as well as normal travellers. Travel Eye provides a variety of useful features, such as maps with sound directions, a history soundtrack, accessibility information, step-by-step navigation, assistance requests, and translation. These features enhance the travel experience for disabled travellers, making it easier to communicate with locals and enjoy a more inclusive trip. Overall, Travel Eye is a great travel application that caters to the needs of disabled travellers while also providing benefits to all travellers.

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REFERENCES

Agovino, M., Casaccia, M., Garofalo, A., & Marchesano, K. (2017). *Tourism and Disability in Italy. Limits and opportunities. Tourism Management Perspectives, 23, 58–67.* doi:10.1016/j.tmp.2017.05.001

Daniels, M. J. Wiggins, B. P. Rodgers, E. D. (2005). *"Travel Tales": An interpretive analysis of constraints and negotiations to pleasure travel as experienced by persons with physical disabilities,* Tourism Management, 26(6):919-930, http://dx.doi.org/10.1016/j.tourman.2004.06.010

Disability: IN. (2019). *Disability Data – Be Counted to Count.* https://www.okurightsmatter.com/disability

Eric Dickmann. (2023). *The Marketing Dilemma for Small Businesses* https://fiveechelon.com/marketing-dilemma-small-businesses/

Kalai Vani Kalimuthu, Vikniswari Vija Kumaran, Thurai Murugan Nathan, Muhammad- Baqir Abdullah, Marini Binti Md Isa. (2023). *Role of People with Disabilities (PWDs) Towards the Sustainability of the Tourism Sectors in Malaysia.*

Shalini Sanmargaraja, Seow, T. W. (2015). *Challenges Faced by the Disabled People while Travelling in the Malaysia National Park.* International Journal of Conceptions on Management and Social Sciences Vol. 3, Issue. 4. https://www.researchgate.net/publication/317036960_Challenges_Faced_by_the_Disabled_People_while_Travelling_in_the_Malaysian_National_Parks

Wani Muthiah (2022). *KJ: Over 40,000 hearing-impaired people registered in Malaysia*. The Star. https://www.thestar.com.my/news/nation/2022/03/03/kj-over-40000-hearing-impaired-people-registered-in-Malaysia

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