i-SPiKE 2023

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

"Optimizing Innovation in Knowledge, Education and Design"

EXTENDED ABSTRACT

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Editors : Dr. Siti Norfazlina Yusoff
Azni Syafena Andin Salamat
Nurfaznim Shuib

Cover design : Syahrini Shawalludin
Layout : Syahrini Shawalludin

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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)

A STORYMAP: JAPANESE OCCUPATION IN MALAYA DIGITAL STORYTELLING

Noorsazwan Ahmad Pugi
Department of Built Environment Studies and Technology,
College of Built Environment, Universiti Teknologi MARA,
Perak Branch, 32610, Seri Iskandar,
Perak
noors240@uitm.edu.my

Azlizan Adila Mohamad
Department of Built Environment Studies and Technology,
College of Built Environment, Universiti Teknologi MARA,
Perak Branch, 32610, Seri Iskandar,
Perak
azliz1122@uitm.edu.my

Izrahayu Che Hashim
Department of Built Environment Studies and Technology,
College of Built Environment, Universiti Teknologi MARA,
Perak Branch, 32610, Seri Iskandar,
Perak
izrah696@uitm.edu.my

Haslina Hashim
Department of Built Environment Studies and Technology,
College of Built Environment, Universiti Teknologi MARA,
Perak Branch, 32610, Seri Iskandar,
Perak
hasli461@uitm.edu.my

Nursyahani Nasron
Surveying Science & Geomatics Studies,
College of Built Environment, Universiti Teknologi MARA,
Perlis Branch, Arau Campus.
Perlis.
nursy6864@uitm.edu.my

ABSTRACT
The Japanese Occupation brought significant socio-political, economic, and cultural changes in Malayan society, and its impact continues to resonate today. It began when the 25th Japanese Army invaded Malaya on December 8, 1941. The Japanese army launched an amphibious assault on the northern coast of Malaya in Kota Bharu and began to advance down to the eastern coast of Malaya. The importance to gain a deeper understanding of this historical period is proved as it is used as oneof the topics in History subject for secondary school. However, traditional approaches to learning history, such as textbooks, often fail to fully capture the complexity and depth of this period, hindering audience

engagement and understanding. Therefore, this project aims to provide a comprehensive and immersive exploration of the Japanese Occupation in Malaya using a web-based interactive story map platform, ArcGIS StoryMaps. By integrating interactive maps, visuals, primary sources, and narratives, it provides insight into the historical significance, and the enduring consequences of the occupation. The objectives of this research are to create a chronology narrative topresent the key events of the Japanese Occupation in Malaya and to provide geospatial context by integrating maps and visualizing the movement of forces and events. The methodology involves gathering historical data, photographs and sources related to the occupation. This data is then utilized to develop a cohesive narrative and storyboard for the story map. Through the integration of interactive maps and multimedia elements, it allows users to explore the spatial and temporal dimensions of the occupation, actively engage with the learning material and gain a deeper understanding of this important period in the history of Malaya.

Keywords: ArcGIS storymap, Japanese Occupation, digital storytelling, interactive storymap, history.

INTRODUCTION

The Japanese Occupation in Malaya during World War II was a significant period that left a lasting impact on the region. It began with the Japanese invasion of Malaya on December 8, 1941, and lasted until the Japanese surrender in August 1945. This occupation period brought about profound socio-political, economic, and cultural changes in Malayan society. The occupation saw the imposition of strict control and policies by the Japanese forces, affecting all aspects of life for the local population. The Japanese aimed to exploit the region's resources and establish their dominance in Southeast Asia. Kratoska (1998) states that the Japanese Occupation profoundly transformed Malayan society, dismantling the existing colonial administration and replacing it with a new system of governance" (p. 135).

The occupation brought hardships, including forced labor, economic exploitation, and human rights abuses. The local population faced challenges such as food shortages, inflation, and a loss of civil liberties. The occupation also witnessed the rise of resistance movements, with groups like the Malayan People's Anti-Japanese Army (MPAJA) and the Malayan Communist Party (MCP) engaging in guerrilla warfare against the Japanese forces. The end of the occupation in 1945 marked a significant turning point in Malayan history. The experiences and legacies of the occupation continue to resonate in contemporary Malayan society, making it a crucial period to study and understand.

History, as a compulsory subject for secondary school students plays a vital role in fostering a comprehensive understanding of the past, shaping critical thinking skills, and nurturing cultural awareness. However, students often encounter various challenges when learning history, hindering their engagement and comprehension of the subject matter. The lack of creativity in history teaching caused students to become bored and lose interest in the subject (Nor Azan Mat Zin et al. (2009). Tok, B. (2016) stated that more difficulty in learning historyon regarding lengthy syllabus and content, conventional method of teaching, irregular used ofteaching-learning materials, less interaction and feedback after the examination. Addressing these challenges is crucial to create effective history learning experiences that promote active engagement, deep comprehension, and a broader perspective on historical events.

To overcome these challenges, this research aims to provide a comprehensive and immersive exploration of a significant historical topic, the Japanese Occupation in Malaya using a digital interactive story map tool, ArcGIS StoryMaps. Both Marta and Osso (2015), and Egiebor and

Foster (2018) describe the use of StoryMaps as engaging and motivating for pupils learning history. By integrating interactive maps, visuals, primary sources, and narratives, it provides insight into the historical significance, and the enduring consequences of the occupation. The objectives of this research are (i) to create a chronology narrative to present the key events of the Japanese Occupation in Malaya and (ii) to provide geospatial context by integrating maps and visualizing the movement of forces and events. Through this approach, students can engage actively with the subject matter and gaining a deeper understanding of this subject through digital interactive tools.

METHODS

This study consists of four (4) phases of methodology starting from preliminary study, data collection phase, story map preparation and story map development.

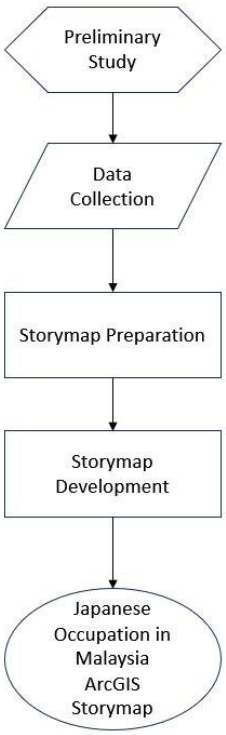

Figure 1. Flowchart of the Methodology

Preliminary Study Phase

This stage involves the determination of the subject matter. It includes planning the material used and methods to apply.

Data Collection Phase

This phase involves collecting pertinent historical data pertaining to the Japanese Occupation of Malaya. It is essential to obtain reliable sources of data to ensure the accuracy and dependability of the study's findings. For this purpose, secondary school textbooks; *Buku Teks Sejarah Tingkatan 4*, and reference books were primarily utilized as the main references.

Story Map Preparation Phase

This phase comprises three processes, chronological framework development, narrative construction and story board design. Chronological framework was established by organizing the collected data into a timeline that accurately reflects the key events and milestones of the Japanese Occupation in Malaya. This involves determining the sequence of events with their respective dates.

Narrative construction was done by developing a cohesive and comprehensive narrative that presents the main events, causes, consequences, and significant developments during the occupation.

Story board design was a crucial process in the preparation of the story map. Storyboard is a valuable tool to facilitate in visualizing the narrative flow, organizing content, selecting visuals and media and sequencing and timing. This storyboard will ensure a well-crafted, engaging and informative historical storytelling experience for the audience.

Story Map Development

The study utilizes ArcGIS StoryMaps to develop a comprehensive and engaging story map on the Japanese Occupation in Malaya. The story map consists of a web-based platform with interactive maps, narrative sections, multimedia integration, visualization, user interaction features, responsive design, and accompanying documentation. By utilizing ArcGIS, the story map enables audiences to explore the geographical aspects of the occupation, understand the spatial dynamics of events, and gain a deeper comprehension of the historical landscape.

RESULTS AND FINDINGS

The output of this project is the web-based interactive story map on the Japanese Occupation in Malaya. This story map allows user to explore spatial and temporal dimensions of this historical events.

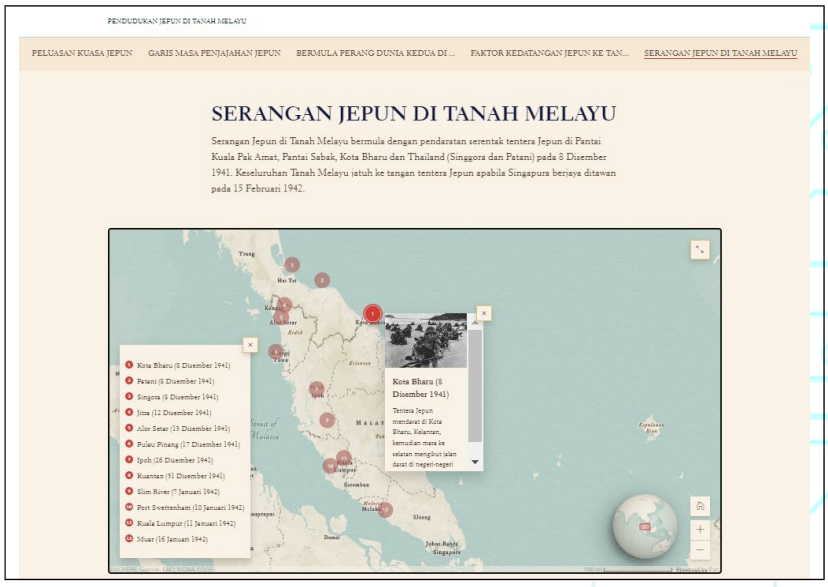

Figure 2. Map of the chronological Japanese Attack in Malaya.

By integrating visual elements, textual information, and interactive maps, it presents the chronology narrative of the key events during the Japanese Occupation. This approach surpasses the limitations of static images or mere text-based lists, providing a more flexible, comprehensive and immersive presentation of the historical period.

This story maps are based on Geographic Information Systems (GIS) technology. It can incorporate maps to provide a spatial context for the events and locations related to the Japanese Occupation in Malaya. Maps can display key cities, military movements, battle sites, and more, enhancing the understanding of this historical events.

CONCLUSION

In conclusion, the Japanese Occupation in Malaya was a significant period that had a lasting impact on the region. This research project emphasizes the importance of studying this historical period and addresses the challenges faced by students in learning history. This story map has created a chronological narrative to present the key events of the Japanese Occupation in Malaya by incorporating visual elements and narratives. Integration between interactive maps provides a geospatial context for visualizing the movement of forces and events. Engaging users with interactive and visually captivating content helps to overcomethe limitations of traditional textbook-based learning and promotes active engagement and deep comprehension. It can serve as a valuable resource for students, educators, and thewider audience, offering an immersive and interactive learning experience.

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