

Immersive Technologies for Library Engagement: Transforming Learning Experiences Through the National Library of Malaysia's Immersive Learning Centre

Presenter:

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Background

- Digital technologies are transforming how people access knowledge
- Libraries are evolving from repositories to interactive learning environments
- Users increasingly expect experiential and multisensory learning
- The National Library of Malaysia established the Immersive Learning Centre (ILC) as part of its digital transformation strategy



Officiated by Minister of National Unity Malaysia

National Library of Malaysia

Video 1

Literature Review: Immersive Learning

Research suggests immersive environments:

- Improve learner engagement and motivation (Makransky & Petersen, 2023)
- Interactive exhibitions allow institutions to present knowledge resources in more engaging ways while preserving fragile collections (IFLA, 2023; Liu et al., 2024)
- Encourage active exploration of knowledge
- Enhance cognitive understanding (Makransky & Petersen, 2023)



Literature Review: Libraries & Heritage

Libraries are increasingly adopting:

- Digital exhibitions
- Interactive storytelling
- Virtual cultural heritage experiences

Immersive technologies help connect modern audiences with historical narratives.

(Zhao et al., 2025)



Problem Statement

- Support learning engagement
- Promote digital library services
- Enhance access to cultural heritage

Key question:

- How can immersive technologies enhance engagement within national libraries?



Research Objectives

1. To identify and categorize the immersive technologies and digital applications implemented within the Immersive Learning Centre.
2. To examine how immersive applications enhance user engagement and support experiential learning within a public library environment.
3. To analyze how culturally grounded immersive content contributes to heritage revitalization and national identity formation.
4. To evaluate preliminary findings from the first two months of implementation in terms of user interaction patterns and service impact.
5. To assess the alignment of the Immersive Learning Centre with national digital transformation policies and international education frameworks such as Sustainable Development Goal 4.

Methodology

Research Design:

- Qualitative case study

Case Study Site:

- Immersive Learning Centre,
National Library of Malaysia

Data Collection:

- Institutional documentation analysis
- Direct observation of immersive services
- User interaction patterns
- Informal engagement feedback



Key Findings

- Immersive zones attract longer visitor engagement
- Visitors actively interact with immersive services
- Strong interest in Hikayat Hang Tuah and Syair Siti Zubaidah storytelling
- Robozone and digital panels increase digital literacy exposure
- Immersive learning supports intergenerational engagement



Findings: User Engagement

Observations indicate:

- Immersive spaces attract longer visitor dwell time
- Users actively explore digital installations
- Interaction becomes curiosity-driven
- Learning becomes experiential rather than passive



Findings: Cultural Heritage Engagement

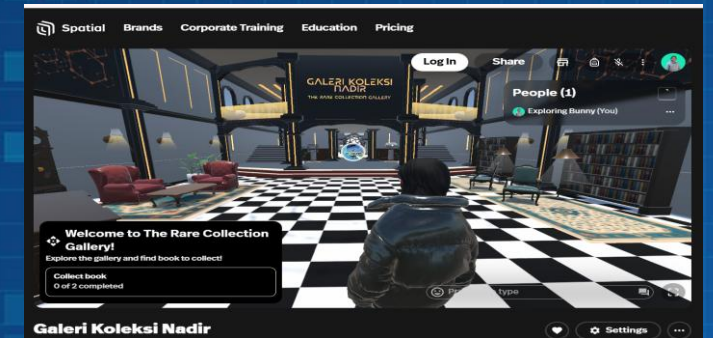
Immersive storytelling based on:

- Hikayat Hang Tuah
- Syair Siti Zubaidah

Renewed interest in classical literature

Visitors explore related books and materials

Cultural narratives become more accessible



Findings: Digital Literacy

Interactive technologies encourage visitors to explore:

- Digital catalogues
- E-books
- Online databases

Robozone and interactive panels increase user com with digital tools.



Findings: Intergenerational Learning

- Immersive installations encourage family participation.

Examples:

- Parents and children interacting together
- Shared exploration of digital storytelling
- Collaborative learning experiences



Immersive Learning Centre

Video 2

Immersive Technologies in ILC

Examples of immersive technologies:

- Hologram
- Virtual Reality (VR)
- Holographic storytelling
- Interactive digital environments
- Virtual exhibitions
- E-Sport



These technologies reshape how knowledge is experienced.

Discussion

Immersive technologies function as strategic tools for library innovation.

- Transform libraries into experiential learning environments
- Encourage curiosity-driven exploration
- Connect digital experiences with physical collections
- Revitalize Malaysian cultural heritage through immersive storytelling



Discussion: Institutional Innovation

Immersive technologies are more than technological attractions.

Function as strategic tools that:

- Transform user experience
- Enhance public engagement
- Expand library services



Discussion: Cultural Revitalization

Immersive storytelling revitalizes cultural heritage.

Benefits:

- Makes traditional narratives accessible
- Connects younger audiences with heritage
- Supports cultural preservation through digital interpretation



Implications for National Libraries

- Strengthen library relevance
- Expand public engagement
- Promote digital literacy
- Support lifelong learning

Future Research Opportunities

Future studies could explore:

- Long-term user engagement patterns
- Learning outcomes from immersive environments
- Comparative studies across libraries
- Integration of emerging technologies such as high end digital contents

Before we reach Conclusion,
Let's go to ILC once again

Video 3

Do visit us!

Conclusion

The Immersive Learning Centre demonstrates how immersive technologies can transform national libraries into dynamic learning environments.

Key contributions:

- Enhanced user engagement
- Cultural heritage revitalization
- Expanded access to digital knowledge





Thank You
I appreciate your attention.

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Questions and discussion are welcome.

