

## THE APPLICATION OF INFORMATIVE MEDIA ON COLLECTIBLES AT THE INDONESIAN NATIONAL MUSEUM

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### ABSTRACT

*The National Museum of Indonesia is one of the facilities that provide information about Indonesian culture and history, which is a vital asset of the country. As a place that stores historical facts, the National Museum needs to guarantee its quality so that information can be conveyed correctly. Therefore, the method of delivering information must be easily understood by visitors from various circles. The use of interactive media can make visitors more involved in the experience of visiting the museum so that they get an unforgettable experience as well as get education about collectibles. The design of the Indonesian National Museum aims to make the museum a place that can fulfil an educational function that can convey information effectively and thoroughly to visitors through communicative displays of museum collections. The method used is a descriptive qualitative method as a unit of the design process according to Kilmer which consists of two stages, namely analysis and synthesis. This research resulted in a museum design that provides an interactive and communicative experience for visitors.*

**Keywords:** education, information, interactive, museum

### 1. PREFACE

The National Museum of Indonesia is a museum of archaeology, history, ethnography and geography located at Jalan Merdeka Barat 12, Gambir, Central Jakarta. The National Museum of Indonesia has around 160,000 artefacts which are categorized into several types, namely prehistory, archaeology, textiles, numismatic, ceramics, history and ethnography. The large number of collections makes the Indonesian National Museum the largest museum in Indonesia and also in Southeast Asia. The National Museum of Indonesia was founded on April 24, 1778 by JCM Radermacher, starting with the establishment of a Batavian cultural institution, Bataviaasch Genootschap van Kunsten en Wetenschap. This museum is an attraction for tourists from all walks of life. One of the uniqueness of this museum is the elephant icon found on the museum page which was a gift from King Chulangkorn (Rama V) from Thailand so that the National Museum of Indonesia is also often called the Elephant Museum. A museum is an institution that is permanent, not for profit, serving the community and its development, open to the public, acquiring, maintaining, connecting and exhibiting artifacts about human identity and the environment for the purposes of study, education and recreation. In addition to being a means of recreation and conservation, the museum also has a function as a means of education. There are various ways to convey information to visitors, one of which is by using interactive media. The use of interactive media can help visitors to better understand the information to be conveyed by the museum by interacting with collectibles in a fun way.

Lack of access to information in museums is often encountered and is a real problem at the Indonesian National Museum. The following is a table of review data from visitors of the Indonesian National Museum:

**Table 1**

*Visitor Review of the National Museum of Indonesia*

Name	Review
Tanzilchoice	The displayed objects are very messy, uninformative, many archaeological objects are damaged
Natalija R	Provides only a little information
Chandra L	Explanation of each collection is also incomplete
Riyo DT	Information about historical objects is not interactive and the way the objects are arranged is also unattractive
Pati Perkasa	Lack of explanation about the collection, must have interactive learning videos
E. Agustia	Needs more explanation when looking at museum collections, the lighting is not good and "blocks" the objects on display

**Source:** *Tripadvisor, 2021*

Based on visitor reviews, the museum has very minimal information. Due to the lack of information displayed about the objects, visitors stated that information are not conveyed properly. Visitors also stated that items were displayed in a boring way. After analyzing, there are no usage of interactive technology at the Indonesian National Museum. The methods used in displaying objects in this museum are vitrine in which objects are only available for the visitors to see and not touch. It does not involve and encourage the visitors to interact with it. Museums like these are very boring and the delivery of information is very ineffective.

### **Figure 1**

*Indonesian National Museum*



**Source:** <https://museumnasional.iheritage.id/>

As stated on the table above, visitors find the current display method boring and the museum does not provide thorough explanation regarding the objects displayed. This research is crucial for the future of museums, for museums to be a better place, to deliver educational information in a fun way to the public by implementing interactive technology that can be easily accessed as a form of communication medium in an interesting way so that the experience is unforgettable and leaves a deep impression.

### **Related Work**

Prior works titled "Faktor Daya Tarik Display Terhadap Pengunjung pada Pengunjung di Museum Ocean World Trans Studio Bandung" by Finna Andriana, Irena Vanessa Gunawan and

Miky Endro Santoso emphasizes on the importance of interactive displays to attract visitors. In this journal article, it is stated that according to their research, large percentage of visitors are interested in the usage of interactive display like touchscreens.

### ***Our Contribution***

This study will discuss the application of hologram technology which has not been widely discussed in the field of interior design. Especially on the object of the Indonesian National Museum, other research related to the application of virtual museum applications.

### ***Paper Structure***

Paper Structure in this journal article include introduction, background, method, findings and discussions, conclusion, acknowledgement and references.

## **BACKGROUND**

The National Museum of Indonesia, which is located at Jalan Merdeka Barat 12, Gambir, Central Jakarta, stores around 160,000 Indonesian artefacts. The large number of collections makes the National Museum of Indonesia the largest museum in Indonesia and also in Southeast Asia. With a very large number of collections, this museum is a cultural center that functions as an educational recreation facility. The application of interactive media that involves active visitors can make it easier to obtain information because there is a two-way communication of collection objects with visitors. The experience gained from interacting with the collection will certainly be different compared to a monotonous exhibition where visitors are only passive spectators. Interactive media can be present in various forms through video, audio, motion sensors, and others. In addition to facilitating the process of conveying information, interactive media can increase the attractiveness of the museum.

Interactive media can help convey information if it is easy to navigate and understand by visitors. If the interactive is too complicated to understand it will result in a loss of attention and interest from visitors. In addition to attention, interactive must also be able to involve the emotions of visitors with something attractive. With a pleasant presentation, visitors get something so that the message can be easily conveyed. In order for visitors to gain knowledge, education needs to be the main goal of the museum. There are several types of interactive museums, namely: find out more, interactive gaming and interactive environmental.

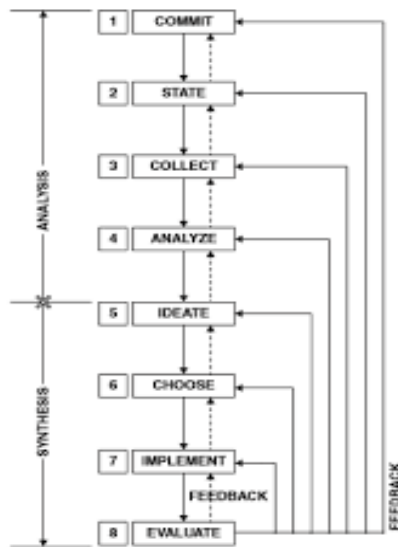
## **2.RESEARCH METHOD**

The method used in the Interior Design of the Indonesian National Museum is a descriptive qualitative method with reference to the eight-step design stage as shown in the image below, according to Rosemary Kilmer and Otie W. Kilmer. The stages of the eight-step design are: (a) Commit, namely the stage of commitment to complete the interior design process of the Indonesian National Museum according to a predetermined schedule; (b) State, namely the stage of determining design problems as well as the strength of the interior design of the Indonesian National Museum, namely an interactive and informative collection display information system; (c) Collect, which is the stage of collecting primary data related to the Indonesian National Museum and its location, as well as secondary data about museum interior design in general, including previous research on museum collection displays; (d) Analyze, namely the analysis phase by comparing the existing data display system at the National Museum of Indonesia, with

interactive and informative display criteria; (e) Ideate, namely the design exploration stage to obtain several alternative displays for interactive and informative museum collections; (f) Choose, which is the stage to determine the best alternative for display design for the collection of the Indonesian National Museum; (g) Implement, namely the stage of making working drawings and interior presentation drawings as a form of applying interactive and informative technology for display arrangements at the Indonesian National Museum; (h) Evaluate, namely the evaluation stage to get feedback on the design implementation by implementing interactive and informative displays.

**Figure 2**

*Indonesian National Museum*



**Source:** <https://museumnasional.iheritage.id/>

Data collection methods to obtain essential information sources are carried out by the means of survey through information on the internet and existing information obtained. The information obtained include Indonesian National Museum's existing condition, collectibles data and size and literature studies.

### ***Data Collection Method***

Techniques or methods used by the author in collecting data are:

1. Survey  
Collecting Indonesian National Museum information and data on the internet, especially that of related to display fixtures.
2. Literature Study  
Collecting data related to display and how to display museum artefacts safely and informative according to literature theories and previous researches.
3. Documentation Method  
Documentation in the form of photos and videos regarding Indonesian National Museum collected through the internet.

### ***Data Processing Method***

The data is selected according to the relevance it has with the application of interactive media in displaying collectibles to help the visitor understand more about the message that is conveyed.

### ***Data Analysis Method***

Possible alternative in displaying collectibles to be as interesting and engaging as possible are analyzed to meet the needs of the visitors. Results from the analysis are applied the interior of the museum in a form of interactive and informative displays.

## **3. FINDINGS AND DISCUSSIONS**

The implementation of interactive media at the National Indonesia Museum is explained below:

### ***Find Out More***

Users can access brief to in-depth information, this interactive model is usually for the use of one person only. Can be touchscreen media and handheld devices. The touchscreen device operates by controlling the finger touch sensor then the system will perform the function according to the screen touch request. The screen display presented is in the form of information about collectibles that can be accessed by visitors.

#### **Figure 3**

*The National Museum of Indonesia*



**Source:** Kelly Tjahjono, 2021

#### **Figure 4**

*Touchscreen Display*



**Source:** Kelly Tjahjono, 2021

Due to its convenience, these touchscreen panels are widely and mostly used in museums. Visitors are able to operate this device with ease, the interface is very easy to maintain even to children. Just a touch and information will pop up hence the name touchscreen. While seemingly a bit basic compared to the other interactive display, touchscreen displays are a great way to display information that enables user to interact directly by touch.

**Figure 5**

*Ideum*



**Source:** <https://www.ideum.com/>

### ***Interactive Gaming***

In the form of games that involve kinaesthetic abilities that test the ability of the end. From this learning experience, visitors get new information. It can be seen in the image below, by utilizing a motion sensor that is processed using a computer application, visitors will get a response that is displayed on the video projector.

**Figure 6**

*Interactive Gaming*



**Source:** Kelly Tjahjono, 2021

Interactive gaming is often displayed in engaging exhibits and game-focused interactive to attract visitors in order for a display to be interesting and communicative. This method is widely used in many museums around the globe including The Fort Collins Museum of Discovery.

**Figure 7**

*The Fort Collins Museum of Discovery*



**Source:**

<https://www.timescall.com/2019/11/07/from-space-invaders-to-angry-birds-fort-collins-museum-of-discovery-exhibit-explores-past-future-of-gaming/>

### ***Interactive Environment***

Used for large-scale shaped environmental atmosphere. An example is the simulation of a room that resembles life in a forest, using interior elements that support the atmosphere of life like a forest. The picture below depicts the atmosphere of life in the forest generated by a screen using software and a computer programming system equipped with a motion sensor so that visitors can interact with the screen.

**Figure 8**

*Interactive Environment*



**Source:** *Kelly Tjahjono, 2021*

The picture attached below is another interactive environment applied in Artethouse Miami and Washington, D.C. where visitors are able to experience interactive art displayed in a large screen.

**Figure 9**

*Artethouse Miami and Washington, D.C.*



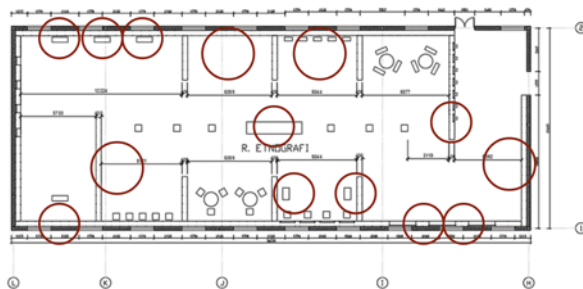


**Source:** <https://www.budgettravel.com/article/interactive-art-installations>

The three interactive methods of display are all used in The National Museum of Indonesia design to increase engagement and help deliver information thoroughly to the visitors. The picture below pinpoints where the interactive displays are available for use.

**Figure 10**

*Irian Etnography Room Layout of The National Museum of Indonesia*



**Source:** Kelly Tjahjono, 2021

## 4. CONCLUSIONS

While museums may hold historical ancient objects, the way of displaying might not necessarily always have to be old school. Taking and incorporating modern measure such as interactive technology in displaying and conveying messages is one of many ways that is able to improve the quality of museums. The usage of interactive technology in museums has helped in delivering information thoroughly of the objects displayed. For The Indonesian National Museum to be more interactive and communicative, the implementation of sensor technology that is integrated with a computer is applied. Interactive media are able to stimulate the visitors' senses, getting them actively involved is a great way to increase visitors' interest. Aside from being interactive, the technology used are easy to operate which can be understood by the visitors with ease.

## ACKNOWLEDGMENT

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