Towards more-than-heritage interpretation
On-site Digital Interpretation as a tool for communication
Case Study on the Current uses at Banque Misr Museum

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Abstract:

Recently the onsite digital interpretation spreads widely. It is age of smart phones, tablets, interactive desktop and the virtual reality. There is no longer digital engagement but digital living, as digital devices became the norm and part of the daily life. This research identifies the different onsite digital interpretation tools with a specific focus on the current uses at Banque Misr Museum. The research concludes by discussing the evaluation of the onsite digital interpretation at Banque Misr Museum, Specific technologies discussed and evaluated include multimedia room, Mini Culturama, Interactive desktop. Evaluation has done through interviews, observation and the user experience's reviews; as a consequence, the research considers the possibility of improving the visitor's experience by using the digital technologies for interpretation to give a kind of immersive, their applications are easy to deal with for everybody; applications are covering lack of signs and labels.

Keywords: virtual reality, Interactive desktop, on-site digital interpretation & User experience.

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Banque Misr Museum

Background information

The museum was established in 25 May 2011 by the leaders and stock holders of Banque Misr which is well supported by the Management Board of the bank. The museum is located inside the main building of Banque Misr which is located at Mohamed Fareed Street, town down of Cairo.

It contains rare objects and historical documents belong to Banque Misr, in addition to personal staff belong to Mohamed Talaat harb Basha (pioneer of national economy) which is presented to the museum by his family. Part of the cover of the holy shrine (Ka'ba) which was a gift for Mohamed Talaat harb Basha from King of Saudi Arabia Abd al-Aziz al-Soud. Many objects belong to Mohamed Talaat harb Basha, from his personal staff, rare books and documents of Mohamed Talaat harb Basha, some are written by his hand.

Original version of ((Description De LE EGYPT)) which is achieved by the French expedition in 1826 A.D. Also, the museum contains digital archive consists of movies, radio & programs, and collections of the original documents belong to Bank Misr(1).

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Museum design

Banque Misr Museum is located inside the main building of Banque Misr in Mohamed Fareed Street, town down of Cairo. Which consists of 4 rooms.

1st room. ((multimedia room)).

Banque Misr gave much care to digitalize the collected heritage of Banque Misr which is more than 100 years old, through data base and different multimedia tools in order to allow researchers and visitors to know in details about the Banque Misr, by different methods.

![picture taken by the researcher]

2nd room. ((Office of Mohamed Talaat harb Basha)).
Contains the office of Mohamed Talaat harb Basha, in addition to small meeting table.
21 picture taken by the researcher

3rd room. ((Companies of Banque Misr)).
This room contains collection of the rarest photos of the 1st companies which established by Banque Misr.

4th room. ((historical documents)).
Contains Mini Culturama.

3 picture taken by the researcher

Method in Evaluation of V.M. of Banque Misr

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Observation has applied by the researcher through doing field tour on the existing museum. According to the applied methods evaluation carried out according to the following steps:

1. Virtual preliminary investigation
2. Observation
3. Data Collection
4. Interview
5. Analysis and Findings

Method employed in the evaluation of a virtual museum conceptual model of which takes into consideration the user interactions. The two phases involved are:

a) Preliminary Investigation: preliminary study is done based on the existing applications of virtual museum in order to evaluate the user experience.

b) Data Collection: the data collection is done through interviews and on-site experience to acquire the user's requirement and the suitable application to evaluate the user experience.
The method involves using the user-experience on site (inside the museum) to meet the needs and requirements of real users.

**Virtual preliminary Investigation**

The observations of existing applications are carried out in preliminary investigation to determine the user experience and requirements.

**Interactive desktop.**

Applications emphasis the virtual reality

- 1st App show coins in both of Arabic and English languages, some coins are shown in interactive way (virtual reality) through touchable screen.
2nd App show the history of king Mohamed Ali and his family, the development of economy and the financial statement of Egypt during this time, and establishing of Bank Misr and its role in Egypt.
Mini Culturama

Mini culturoma exist in the 5th room, consists of three small panoramic display surround the audience, it shows historical time line for Bank Misr, also it shows panoramic show of the most important financial and economic events during the time of king Mohamed Ali and his royal family with highlighting on the life of Mohamed Talaat harb Basha (pioneer of national economy). It is available for approximately 15 visitors.
Historical time line, panorama of real scenes and sites. Moreover, it has introduced a new concept for developing multimedia to take advantage of this huge display area. It has benefited from the standard equipment of the ordinary workstation, and regular video display screen (projectors) in addition to the implementation of the semicircular screen using flat projection screens. Culturama is made by made using that familiar equipment (center for documentation of cultural and natural heritage 2016)\(^2\).
Culturama advantages:

One of the main advantages of CULTURAMA is to allow the display of specific content that could not have been displayed before. For an example, we were able to display a timeline for the Islamic civilization that starts from the Amr Ibn Al Ass era (the start of Islamic era in Egypt) to Mohammad Ali era. Another example would be displaying panoramic images of the famous mosques and Islamic Monuments in Egypt in 180 degrees seamlessly. This all is done using a low-profile hardware which gave CULTURAMA the advantage of being a low-cost and portable solution.

Besides being an ideal tool for presenting heritage content, CULTURAMA is an educational tool as well. Because of its size and usability, it can be a perfect educational tool especially for school students to learn history. Students, with the help of their teachers can interact with timelines and see real panoramic images of ancient sites in an interesting and immersive way.

Observation

Observation has applied by the researcher through doing field tour on the existing museum. Desktop interactive applications were switched off during the visiting time. The Desktop interactive applications show all detailed information and very easy to use.

Evaluation based on selection of the features depended on subjective priorities (criteria’s) for interactive virtual museums. Four aspects of user experience have been

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proposed by the model of Thüring und Mahlke: Utility, Learnability, Efficiency and Stimulation (Thüring, M., Mahlke, S. 2007) \(^{(3)}\).

- Mini Culturama was switched off during the visiting time.
- Some visitors visited the museum without experience the virtual museum applications.

- **Data Collection**

  In the data collection phase, the actual practicing technique is used to obtain the need of the users in developing virtual museum and interview with other users who experienced the museum. An addition, interviews were also carried out with the museum officers in the case study.

- **Interview**

  **Interview with staff**

  The interview session was conducted with information technology officer and assistant curator of communication and marketing department at museum of Bank misr Mr. Sameh nabeel hassan. the findings from the interview are the requirements content of virtual museum which required to be presented to the public.

  Based on a meeting with Mr. Sameh Nabeel Hassan, he mentioned using of the virtual technology in the museum is controlled by the type of the objects which are in exhibition in the museum.
• I asked if there is official statistics of the users of the virtual technology in the museum? And their feedback regarding the application?
• Do you have method to evaluate the impact of the virtual applications on the users (visitors)?
• What is your opinion about using the virtual applications in the museum?
• Do you think it is necessary to develop the virtual museum?

It is considered as making balance for the visitor’s experience without taking long time.

• Are you in touch with users of the virtual museum?

Yes, through the face book page,

a. **Interview with users.**

The interview session was conducted by the researcher with M.S. Nagwa Bakr (Curator and archeologist at the Ministry of Antiquities) in 25/8/2020. During the discussion she stated that:

Virtual museum of Bank Misr is good, and suits the content and the exhibition of Bank Misr's Museum. The interactive desktop is very useful; it offers information about the coins and the history of the bank. The most excited feature is the interactive method in 3D mode, which gives her a kind of immersive, and let her feels touching the coins. She mentioned that, their applications are easy to deal with for everybody; applications are covering lack of signs and labels. M.S. Nagwa said Mini CULTURAMA at Bank Misr's Museum is good and immersed her within the museum's

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exhibition, its show relieved the history and it influenced her to visit the museum again. She said, the negative feature of the virtual museum of Bank Misr is access, the virtual museum is not available online for visitors, and access is only available for the Bank's staff. It should be accessible for everybody online. While the interactive desktop applications are switched off usually, it is not available for all visitors.

- **Analysis and Findings**

Based on the evaluation method which depended on Virtual preliminary Investigation, observation, data collection, Interview with both staff and user. It has been identified, virtual museum in Bank Misr is definitely positive.

- Rich user interactions.
- User can manipulate artifact.
- Quality of images is high resolution.
- Rich of information
- User interactions are incorporated in the virtual museum.
- Guidelines in designing the interface of virtual museum are easy.
- The assessment of usability in virtual museum is done in serious manner.
The model consists of four main items; components, techniques, user interaction and usability. There are two main components which is environment that used inside the museum, interactive desktop technique and Mini Culturama, and the object component used interactive applications for the desktop and immersive movie for the mini Culturama. Four elements of user interaction consist of utility; learnability, efficiency and stimulation.

**Conclusion**

Based on the preliminary Investigation, observation, data collection, Interview with both staff, and users of the onsite digital interpretation in Bank Misr Museum. It has been identified, onsite digital interpretation is definitely having a positive impact on the user experience, a large percentage of participants are interested in using the different types of the virtual museum, as most of them enjoyed visiting and using these virtual museums.
Bibliography

1- Prucher of Banque Misr (2019).
2- Center for documentation of cultural and natural heritage (2019)
