Museum Experience through Interpretive Devices – Cognitive Process in the Perception of Art

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Abstract:

Recent advances in wireless network technologies create the potential to significantly enhance the experience of a visit to a museum through all kinds of interpretive devices. Especially inside Art Museums, visitors are getting used to carry wirelessly connected interpretive devices which can be given opportunities not only for explanations and exploration, but as a powerful analytical tools as well, and suggestions for related experiences. When these interpretive devices are part of the network, they also can help extend the museum visit: in advance, through activities that orient visitors; and afterward, through opportunities to reflect and explore related ideas. This paper first criticised both audio and multimedia devices for cognitive process in the perception of art inside museum environment, to discuss that whether audio / multimedia guides are good additions to the group of interpretive devices that museums offer their visitors; and second drew out the cognitive process model which shows that the visitor can continuously access the outcome of an effective evaluation and able to express his/her (dis)like of the artwork at any stage of the process.

Keywords: Interpretive Devices; Museum Learning; Cognitive Process; Museum Experience

Introduction:

> Every museum visitor is a storyteller with authority. Every evocative object on exhibit is a mnemonic device. Every visitor interaction is story-making as visitors fit portions of our collections into personal frames of reference; most often in ways we neither intended nor anticipated.
>
> — Robert Archibald, Missouri Historical Society

In recent years, there has been a growing interest in exploring how digital and communication technologies might enhance the interpretation of art museums. It has been suggested that new technologies may provide more flexible resources which enable visitors to experience, discover and reflect art unparalleled by solution as wall labels; catalogues; audio guides and multimedia guides.

In this brief paper, the author wish to discuss the ways for visitors used interpretation devices to read and navigate an exhibition to explore particular art work inside the museum. Those interpretive devices provided with visitor with 'content'- including text, audio and images concerning a selected number of objects. The paper concludes with a brief discussion on the design and deployment of novel interpretation devices for visiting cognitive process in the perception of art in the end.

The Overview of Interpretive Devices inside Museums:

A lot of museums still seem to assume that works of art speak for themselves and therefore do not require interpretation. However, there is no guarantee that each visitor will understand what a work of art is saying. Even museums that do not explicitly subscribe to this maxim often do act accordingly, providing little or no information about the works of art in their collection. They leave it up to the visitors to make their own interpretations. This does not necessarily have to be a bad thing, but it does leave a lot of work for the visitors. Nancy Proctor, the Head of New Media at the Smithsonian, compares this interpretation with the cutlery at a banquet. If it is not provided: 'Some visitors may bring their own food, some may only eat the finger food and others may choose to go to another restaurant. In any case many visitors will leave hungry, feeling uninvited and unwelcome.' According to her it is up to museums to provide this cutlery. [1]

Peter Samis, Associate Curator at the S an Francisco Museum of Modern Art, gives a good description of what interpretation should do: 'The work of interpretation is to give cognitive hooks to the hookless, and assure that these hooks are sufficiently varied so that they can successfully land in the mental fabric of a broad array of visitors. Once visitors have a framework, all kinds of sensory impressions, emotions and reflections can weave themselves into the fabric of perception. In fact, the more you know about a subject, the more you can learn about it.' [2] In other words, it should try to make each work of art more accessible and relatable. Interpretive devices are the devices that are used to provide this interpretation.

Museums use a broad range of interpretive devices like wall labels, catalogues and audio tours. Most of which have been around for some time. The digital audio and multimedia guides are relatively recent additions. Each museum makes its own mix of interpretive devices to offers to its visitors. This chapter will only focus on audio and multimedia guides, Guide ID's main products.

Audio guides

One of the first audio guide systems was developed in the 1950's, it was called Ambulatory Lectures. The system used short-wave radio broadcasting to distribute its content. It broadcasted lectures in different languages to visitors that had a radio receiver. These lectures were recorded on a tape and then played sequentially, meaning that all visitors heard the same lecture at the same time in the same language. In the 1970's a Walkman taped tour was introduced and in the 1990's the transition was made towards digital technologies. Nowadays, all audio guides are digital.

Figure1: A dual head-phoned Acoustic-guide audio in use at the National Gallery of Art, Washington D.C., ca.1965. These portable cassette players would take over from radio guides as the dominate audio guide system, so much so that today in North America, Acoustic-guides is eponymous.

(Source: National Gallery of Art, Washington, D.C. Gallery Achieves)

Digital audio guides enabled the development of non-linear audio tours. This meant that visitors became free to choose whatever story they wanted to hear, at any given time, thus giving the visitor more control and freedom. However, it has also made it more difficult to tell a story that connects works within an exhibition. Because you do not know what content the visitor has previously heard. A consequence is that nowadays each work has its own separate story. This can be somewhat avoided by adding a general story to each exhibition room, a story that is not linked to a single work.

Most digital audio guides feature a keypad that enables visitors to type in the number of the object that they want to know more about, to trigger the content. This number suggests a certain sequence; this can either be positive or negative depending on whether that sequence really exists. WiFi and infrared are

other ways to trigger content. Most audio tours only have one level of interpretation, however, some tours have an option to request more information. This is usually announced in the audio content itself and requires you to type in another number. Audio guides provide feedback through audio and often also via a LED display.

Throughout its history the audio guide has been the subject of a lot of criticism. One early comment is: 'It is a fact beyond doubt that a great many visitors like to wander at will, stand and stare, and equally dislike any breath of regimentation. There is a danger that with the wide application of mechanical gadgets the quality of visitors may suffer. There are many who would be dismayed if they saw throughout the building people with black boxes around their necks pass by with a faraway expression in their eyes […] guided by some mysterious forces they walk, turn and stop in almost synchronized precision before exhibit after exhibit.' [3] Some of the concerns expressed above are valid. Research has shown that the audio guide not only influences the behaviour of the people who use them but also of those who do not use them.

A positive behaviour change is that visitors with an audio guide tend to spend more time in the museum. This is caused by the fact that they tend to stay longer at an object, even if it is only to listen to the entire audio stop. In addition, an audio tour keeps the visitor's attention focused on the object itself instead of diverting attention to for instance the label.

Research has shown that the main reasons for visitors not to use an audio guide are that they have never tried one before or the costs. Another often heard complain, is that the headphones of an audio guide inhibit conversation among visitors. However, research has shown that few visitors see this as a reason for not taking an audio tour. [4] This either means that people do not miss this conversation or that the audio guide is no inhibition to it. It does, however, tend to send a certain signal to other museum visitors about not wanting to be disturbed and/or about not wanting to participate in a general conversation. Some solutions have been proposed to address this problem. Instead of using a headphone one can use a single earpiece or a wand type audio guide.

Audio guides are already widely available in museums. A recent survey shows that more than 50% of museums have an audio tour. [5] Of the museums offering an audio tour about 50% has included them in the ticket price, giving them to all visitors. [6] One can say that audio guides are generally perceived to be capable of enhancing the museum experience.

Multimedia guides

Multimedia guides are often seen as the next step in the development of interpretive devices. Most audio tour companies have therefore also developed multimedia guides. The main difference between an audio and a multimedia guide is the screen. A large colour screen and usually also a touch screen interface characterize the multimedia guide. Content can be triggered in the same way as with audio guides. The content of multimedia guides tends to have multiple levels that can be accessed through a menu visible on the screen.

The greatest advantage of multimedia guides is that they are able to provide the visitor with different media including text, images, videos and games. This means that multimedia tours offer museums the opportunity to provide greater access to intellectual and cultural resources. The multimedia guide also appeals to new audiences like visitors with hearing impairments, younger people and school groups. Audiences that are more difficult to reach with traditional interpretive devices.

Like the audio guide the multimedia guide also influences the behaviour of its users. Research tends to show that people spent a lot of time looking at and operating the device. Some even suggest that visitors look more at their multimedia guide than at the actual objects. [7] In contrast to audio guides the screen of the multimedia guide can be seen as a distraction, because of this they are probably even more isolating than audio guides.

Although the research on multimedia guides is still scarce, its results are encouraging. The research seems to show that people using multimedia guides have more extensive learning experiences, demonstrate a deeper level of understanding and critical thinking, make more connections to their own history and background and engage in greater personal learning. [8] The threshold to introduce a multimedia guide system in a museum is higher than with audio guides. Not only is the hardware more expensive, creating the content is also relatively time consuming and expensive.

The criticism that audio and multimedia devices detract visitors from experiencing the art in a museum and decrease social experiences may be valid. However, this is a characteristic that is shared to a greater or lesser extent by all interpretive devices. A tour guide will also detract attention from a work of art; the same is true for labels and booklets. To conclude, it is clear that audio and multimedia guides are good additions to the group of interpretive devices that museums offer their visitors.

From Educational Aspects:

Learning is an important part of the museum experience; both the museum and the museum visitors recognize this. [9] However, the museum is a place of informal learning, which means that it occurs completely voluntary and that there is no test of knowledge at the exit. It also means that visitors generally come without distinct learning goals.

There seems to be a certain discrepancy between what museums and museum visitor consider to be learning. For visitors learning is distinct from education. According to Megan Axelson a researcher in the field of museology: ‘In ‘learning, visitors gain an understanding through self-discovery, whereas in ‘education’ visitors are instructed in skills and information.’ [10] For museums learning is often synonymous with education. Hence almost all museums have a department of education. Doering even goes as far as saying that most museums use the “baby bird” model when it comes to education. This means that the visitor is seen as having a relatively undeveloped appetite needing the wise and learned feeding of a museum. [11] It is clear that this is not the way visitors see themselves.

Another interesting fact is that even though museums and museum visitors think learning is very important, most museum visitors acquire little new factual knowledge. [12] This suggests that museums are not very successful at educating their visitors. It is therefore important to find out how museum visitors learn and what museums can be done to stimulate this.

Learning theory

Kirsten Gibbs, et al. in their book about lifelong learning in museums say that there are four theoretical approaches to learning in museums. The instructive or didactic approach, the active or discovery learning approach, the constructivist approach and the social constructionist approach. [13] This chapter will only describe the constructivist approach because of its current dominance in current education literature.

The main principle behind the constructivist learning theory is that knowledge is constructed in the mind of the learner and does therefore not exist outside the learner. This means that the theory focuses on the learner itself. This construction of knowledge means that to make meaning of our experiences we need to make a connection with what we already know. In other words constructivist museums would try to encourage people to make connections between what is new and what they already know.

Doerings argument that the "most satisfying exhibitions for visitors are those that resonate with their experience and provide new information in ways that confirm and enrich their own view of the world" [14] fits in this theory. It also explains the phenomenon that the more one knows about art the more one is going to like it. Simply because there is already a greater framework of knowledge to build on. It also explains why it is difficult for museums to convey factual information, because it is not clear whether this information fits in the pre-existing knowledge structure of a visitor. An example of a constructivist learning theory is that of Kolb.

Doerings conclusion is that exhibitions are both inefficient and ineffective methods for communicating new information or changing attitudes, while recognizing that they are powerful tools for confirming, reinforcing and extending existing beliefs. [15] The key to learning is therefore the existing knowledge construction or as Doerings calls it the entrance narrative of the visitor. Knowledge of this entrance narrative could provide museums with the means to personalize visitor learning.

The Experience Museum

A museum's main asset is usually its collection, consisting of unique and authentic objects that visitors come to see. This chapter focuses on the experiences visitors have with the museum's collection. The different theories it discusses are mostly about works of art but can to a certain extent also be applied to historic collections.

In order to better understand the experiences visitors have in a museum, it is important to understand what attracts them to specific objects. Why do people like certain works of art and dislike others? The art

historian Ernst Gombrich gives the following answer: 'Someone may like a landscape painting because it reminds him of home, or a portrait because it reminds him of a friend. There is nothing wrong with that. All of us, when we see a painting, are bound to be reminded of a hundred-and-one things which influence our likes and dislikes.' [16] So according to Gombrich: our emotional response to a work of art is mainly influenced by previous experiences and memories.

Another theory has been put forward by Samis, which is called Visual Velcro. [17] Which basically says that in order for an artwork to be remembered, it needs to contain something that strikes you when you look at it, a figure, a vivid colour a memory trigger or an implied narrative connection. It needs to hook into your cognitive structure in order to stand a chance of being remembered (to stick). The following chapter will shed more light on the cognitive aspects of the experience of art.

Figure2: A visitor to Gallery One at the Cleveland Museum of Art on Jan. 9, 2013. She is using the iPad to learn more about Paul III by Chuck Close. (Scott Shaw/Plain Dealer)

Conclusion

The experiences museum visitors have with individual works of art are an important part of the museum experience. Figure 1.8 shows a psychological model of this experience (a simplification of a model by Helmut Leder, professor in Psychology, et al). It presupposes that the challenge of art is mainly driven by a need for understanding. The model therefore focuses on the cognitive process that leads to the

understanding of a work of art; a process that often leads to positive and self-rewarding experiences. [18] This process starts when a visitor encounters a work of art and ends either when a satisfactory emotional state is reached or when the visitor sees no chance of reaching such a state in the near future.

The cognitive process can, because of the loops, be indefinitely long; the more time a visitor invests in the classification and interpretation of an artwork the closer he/she will get to the "real" interpretation. It is, however, in the nature of works of art that there always remains a certain ambiguity and uncertainty about the correctness of any interpretation. [19] The model also shows that the visitor can continuously access the outcome of an affective evaluation. In other words the visitor is able to express his/her (dis)like of the artwork at any stage of the process.

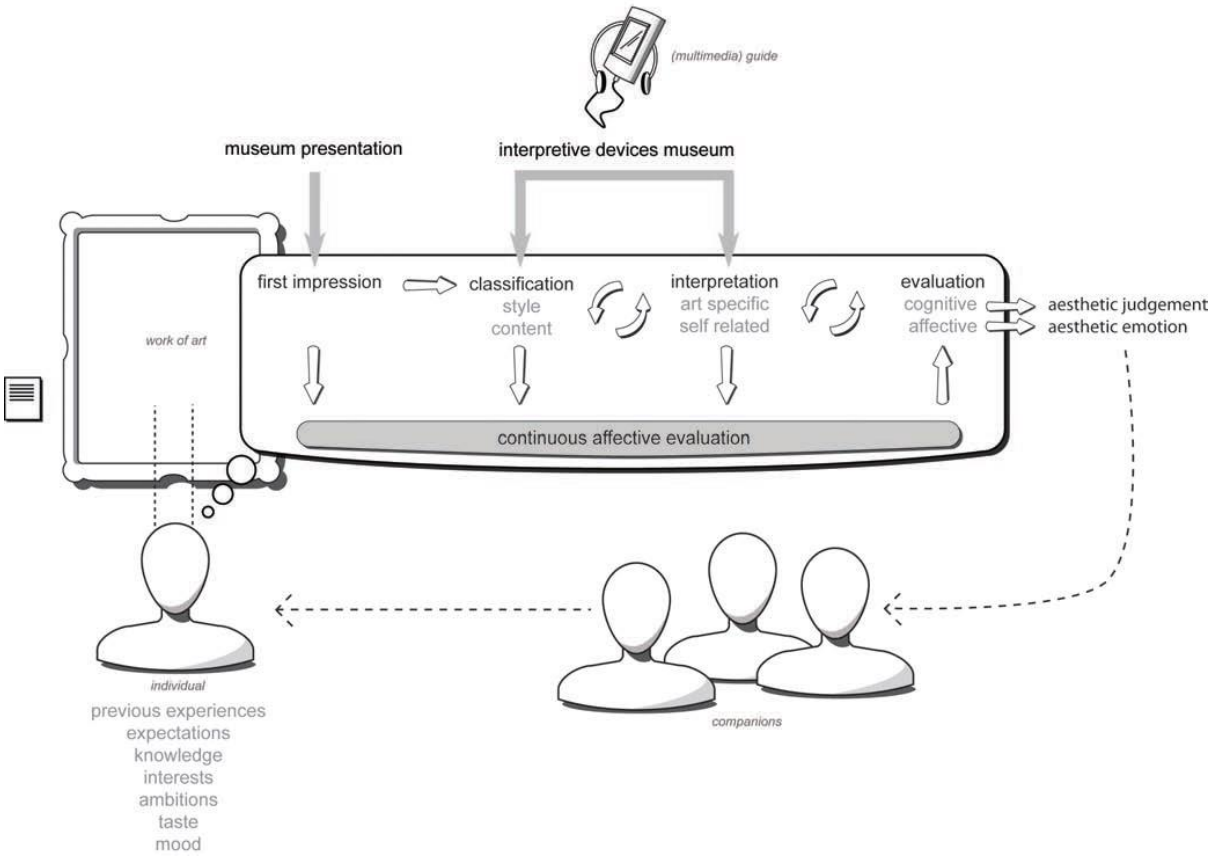

Figure3: The cognitive process

The model also displays which stages the interpretive devices of museums, like labels and audio/multimedia guides, can support.

The encounter with a work of art starts with a first impression. During this stage the complexity, contrast, symmetry, order, and grouping of the work of art determine whether it is judged to be beautiful or interesting enough to be further examined. When this is the case, the visitor will start to classify the artwork. This stage is particularly influenced by the knowledge and expertise of the visitor. Initially, it means identifying/classifying the object, its content, its style, its creator etc. This enables the visitor to

place the work within his/her frame of reference, so it can be compared to other works (earlier encountered) with similar characteristics. In the interpretation stage the visitor will alter and test hypotheses concerning the meaning of the artwork until a satisfactory interpretation is reached. This interpretation can either be based on art specific knowledge or when this knowledge is missing on the visitor's own life and experiences. Finally, in the evaluation stage, the success of the cognitive mastering of the artwork is evaluated and a decision is made whether or not the process is rewarding enough to continue. The two outcomes of this stage are an aesthetic emotion and an aesthetic judgment.

The aesthetic emotion depends on the subjective success of the different cognitive processing stages (the cognitive mastering of a work of art) and can be described as pleasure or happiness. It can also result in displeasure when it is not possible to cognitively master an artwork. The aesthetic judgment is based on the cognitive and emotional reception of the work. The aesthetic judgment and emotion can then be discussed with other visitors and this discussion can lead to a continuation or cessation of the cognitive process.

Notes

[1] Proctor, 2008

[2] Samis, 2007

[3] Editorial 1960 in Din 2007, p.112

[4] Smith 2008, p.69

[5] Wetterlund 2003, p.3

[6] Proctor 2003, p.1

[7] Vom Lehn 2003, p.13

[8] Manning 2004

[9] Orr 2004, p.3

[10] Axelsen 2006, p.208

[11] Doering 1999, p.3

[12] Doering1999, p.7

[13] Gibbs 2007

[14] Orr 2004, p.3

[15] Doering 1999, p.8

[16] Gombrich 1956, p.5

[17] Samis 2007

[18] Leder 2004, p.489

[19] Leder 2004, p.501

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