<Mediterior (study of exhibition guide system)>

새로운 출발

박현진
홍익대학교 국제디자인 전문 대학원, 디지털미디어 디자인
maria75117@idas.ac.kr
Supervisor: Simone Carena  Referee: Kan Nah, Roger Pitiot

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Metamorphosis

Park, Hyun Jean
International Design School for Advanced Studies, Digital Media Design
Supervisor: Simone Carena  Referee: Kan Nah, Roger Pitiot

요 약

This is study about interior guide system, especially in exhibition space. As experimental project, the study is focusing on designing the system itself. Think about past and present’s exhibition system and what needs is in nowadays exhibition system. And picturing of this project and site search to detail scenario and draw and write scenario. To express, screen graphic is used in physical context.

Keyword: HCI, Design (Interior + Media + Interaction), Experience design, Story telling
I. INTRODUCTION

1. Understand the user’s experience

An exhibition space is communicative place by showing objects or artist’s skill. People use diverse ways to deliver message in the place. A curator begins to connect with artist and visitor. Many arrangement ways were studied and a show case was invented. White wall used for concentrate on objects. Labels are used for explain objects. Audio system that is used a MP3, PDA guides visitors and talks about objects.

All of this focused on relationship between visitors and objects. It means limited communication among visitor, curator and artist. It needs more organic system to effective exhibition. An artist makes an effort to his work and it is exhibited to show other people. A visitor can misunderstand because he might watch the work through a curator’s point of view. Also a visitor might want to get more information and he might have different point of view with a curator about a work. When a visitor watches an object with the audio system, he can enjoy object without any interruption, but his other communication will decline. Also, existing systems are passive. Visitors are guided according to an audio system or guide.

Therefore, exhibition is going to be more experience place for a visitor by their active participation. For active, organic environment, an interactive system needs. As first step, a mediator between visitor and works to active participation and through it, visitor can get customized information at the space.

2. Schema

The system starts with a mediator that connect visitor with works. It activated by visitor’s movement to guide and it shows information of work to visitor.

The system begins with the mediator. It is activated by visitor’s movement to serve as customized spot light. When visitor near to work, projected image came out and guide. According to visitor, it gives information and entertainment.

⑴ The system acts like a customized spot light.
⑵ The system function as a customized guide
⑶ data visualization
⑷ (entertainment point of view) one of display way for exhibition to make visitor enjoy works.
⑸ visitor’s reaction by interaction by data : how long visitor stay near work…etc

The study concentrates on detail scenario with how it works. As first step, I did test the system to see visitor’s reaction and site search. And build up specific scenario and than I had several test to realize the scenario.
II. SCENARIO

1. Test 1 / Brainstorming
Interaction design process is different with traditional industrial design and it is experimental design. So I need build up my own process and I need picturing output. I decided to test with reflection of mirror.

(Mediator = bird)

(Mirror control position of a bird animation)
I used a bird character as symbol of mediator and made animation to project on the wall. To test interaction, I used a mirror. Also landscape images are used for extensity. I tested with reflecting the bird animation; moving position like bird’s flying. I had help from David Hall, Ji young Kim, Yang hyun Kim and Hyo jin Nam. Thanks to them.

(2004.5)
I offer a digitalized character, for example, shape-like a bird, which is connected with the light system in an exhibition so can adjust the intensity of each light where a visitor is standing. The bird can navigate the room of gallery for a visitor and guide the next destination. It can help a visitor to focus more on works and make his/her private experience more private. And its interactive information system gives visible and/or audible document that a visitor wants to know about the art or the artist.
The system makes live space, like human body. Vivid-space (Walls are skin, the system is brain, beams are skeletons) the space is for an exhibition. An exhibition’s aim is deliver message so that it contains contemporary culture.

An exhibition is a place that is public showing contemporary culture, and stage is also doing same role. This space is being like stage.

This is an exhibition space where is a phantom live. Whenever visitors come, phantoms guide the exhibition.

One day, a girl entered the space.

People reaction
- Interaction can happen according to not only visitor’s movement but also a visitor’s shadow.
- This space is lyrical, narrative.
- Because of dark space, visitor can hesitate enter the space.

After the test, I concentrated on what is the best way of guide. And I tried to use elements of space.

2. Site search
I need specific site to make detail scenario and researched.

2.1 Samsung electronics history hall
Location: Su- won

2.2 Meisterhause
Location: daehak-ro
When I first visit the meisterhasuse, I thought that it is a flower shop. But it is education and exhibition space.
http://www.bangsik.co.kr

2F – office, 1F – education, work, display area
2.3 art shop at Insa-dong

3. Scenario

3.1 Space scenario

To visitor’s active participation → give inspiration, impression
Visitors enter an interior environment, so they assume artificial environment. By showing exterior environment, an exhibition will be more experience place for them
→ [借景] 원리, borrowed landscape, leverage of borrowing
→ Korean style garden: Hee-won,
3.2 System scenario

Flowers attract butterfly and bees and they sit on the flower. So pollen covered their legs and the flower continues life. I inspired this phenomenon to design the system.

(1) network system

At 1st floor, students learn about flower art and work. So I think about networking system between artist and visitor at exhibition area. Visitor can preview flower art before exhibited. (Artist point of view) To picturing how exhibited (light, mood of site etc)

Information is projected according to visitor’s position. (sensor + max/msp + projector)

(2) guide system

When visitor tries to touch a work, butterfly disappears.

When visitor close to a work, it wind. (Embedded pump + sensor)

III. PROTOTYPE DEVELOPMENT

1. System Scenario

#1 In the space, there is circle and landscape image is projected. The landscape image acts like scenery of outside window. The circle floats at space and it acts as cue to visitor that there is a system. Also it functions as spot light.

#2. When visitor come, camera catches movement and the circle activates.
#3 When visitor stop near a work, the spot goes on it.

#4 When visitor stops to watch work, a butterfly animation is played on the visitor’s shadow. As attraction, it guide visitor.

#5. After the butterfly animation, information text is played.

#6. When visitor moves the spot light moves.

#7. The butterfly animation also moves and follow visitor.

The exhibition is not for one person, so I have to figure out that how play these animations to each people.

2. Making Prototype

To realize the scenario, the system is activated by people’s movement. The most important thing is how to computer reads people’s movement. Sensors and camera can perceive people’s movement. So I thought about the distance sensor with real light. According to my scenario, I have to install 3 sensors each object. It is not adequate way to the scenario and it is expensive to install so I decided to use a camera to recognize people. To realize this scenario, You Kung Choi helped me when I had test, shooting and composing software. Thanks to her.

2.1 video tracking

A video reads people position like human eye. Connecting with projector and computer, it can control the system.

- Flow of hardware
2.2 Flow of software, programming
Psudocode: a circle animation played. (Activated and sensing people movement) when the movement is not perceived, animation is stopped and plays the butterfly animation at people shadow and than show text.
I used the max msp and jitter program.

By using this patch, I composed circle and butterfly animation. It can sense movement and play animation and text.

2.3 Making animation

I went to the Maisan, Jin ann and shooting and I made a stop frame animation with paper butterfly but the butterfly has reflection on the animation because it made of paper. So I draw butterfly animation.

2.4 Installations

(2005. 11)
I installed the system at #202 IDAS with You Koung Choi and Hyo jung Park and film it.

With the film, I contacted with the Meisterhause and friend who are learning flower art to get their opinion
about the mediator. They are interested in the mediator and curious about it. During the conversation, I found that the system needs not only exhibition place as a guide system but also shop as an advertisement to sales promotions.

IV. CONCLUSION

The mediator is an experimental exhibition guide system. I built up space and system scenario with specific site. The main achievement of this thesis is working prototype. It makes deliver message by using visible interaction to visitors. So that the space can be narrative environmental and visitors can get strong experience at the exhibition by the mediator.

In the study, I have to consider many fields (space, flower art, computer science, human factor, story telling and multimedia etc), and this paper contained my synthetic output and attitude about interaction design. During this study, I had mistakes and correction because mediator is complicate. If computer scientist read this paper, he might be think about the mediator needs more expertise about computer science. But I wan to emphasize importance of harmony like orchestra in this paper.

For the future study, I need cooperation with scientist to develop more accurate and practical version. I will keep contact with the Meisterhause.

Reference

*The language of new media*, Lev Manovich, 서정신 옮김, 생각의 나무, 2004
*Blur* Diller+Scofidio, Abrams, 2002
*Physical computing*, Dan O’Sullivan and Tom Igoe, Thomson, 2003
*히르츠 이야기* Anthony Dunne, 박해천, 최성민 옮김, 시지락, 2002
*에드워드 슈타이켄 성공신화의 셔터를 누르다*, 최봉림, 디자인 하우스, 2000
*Multimedia artist Laszlo Moholy-Nagy*, 박신의, 디자인 하우스, 2002
*International design culture conference 2004 도록*, kdri 한국 디자인 산업 연구센터, 2004

Shower in the zoo, Yana, International Design school for Advanced Studies, 2003
Embedded theater (new tools for interactive narrative with location as an actor, Ryan genz, Interaction Design Institute Ivrea, 2003

http://magazine.jungle.co.kr/cat_interior/detail_view.asp?
master_idx=10263&pagenum=1&temtype=5&page=6&code=6&menu_idx=84
http://www.emplive.org/
http://www.adamfrank.com/
http://www.idd.tamabi.ac.jp/Gravity&Resistance
http://www.artinculture.co.kr/webzine/wzine_2200_content.asp?idx=347
http://www.cycling74.com