

HOW PEOPLE INTERACT WITH VIRTUAL MUSEUMS (VMS)? WHICH ARE THE SOCIAL AND PSYCHOLOGICAL REPERCUSSIONS?

The expectations and the awareness of the public attending museums are evolving. It is therefore a priority to evaluate the impact that virtual applications in museums produce on the audience.

Audience evaluation is the process of examining information about users and it helps developers, experts and researchers to adapt the "message" in order to be well understood by the final receivers.

How we do it? MULTI-PARTITIONED ANALYSIS



OBSERVATION

QUESTIONNAIRES

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1. METHOD

- Qualitative and quantitative types of analysis
- Characterised by rigidity, cross-check sessions, supporting guidelines
- Combination of three parallel techniques
- Reasonable number of visitors (minimum 50 users)

2. GOALS

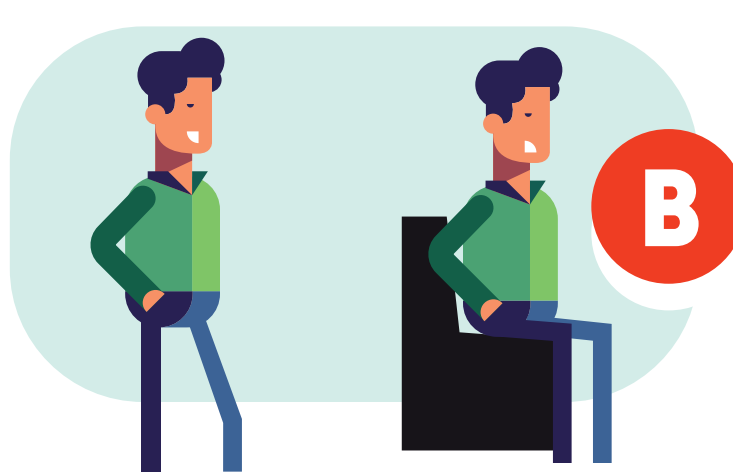
- Usability
- User satisfaction
- Educational potential of content
- Accessibility of such applications into the museum environment.



FILL IN THE QUESTIONNAIRE



DRIVEN-SCENARIO CONDUCTION



DIVISION IN ACTIVE AND PASSIVE USERS



ENTER IN THE VM ROOM

3. PROCESS

4. TOOLS

OBSERVATION ACTIVE/PASSIVE USERS
 Virtual Museum of the Tiber Valley
 Etruscan National Museum of Villa Giulia

1) Where does the visitor go when he/she enters the room of the application?

He/she goes to the installation and he/she doesn't go to the screens	
He/she goes to the screens and he/she doesn't go to the installation	
He/she is immediately attracted to the screens and then he/she goes to the application	
He/she is immediately attracted to the application and then he/she goes to the screens	
He/she goes into the room and he/she doesn't see anything	

OBSERVING

4. THERE ARE THREE ICONS ON THE LEFT LOWER PART OF THE SCREEN, IS IT CLEAR HOW YOU CAN USE THEM FOR?

Yes it was immediately clear

Yes it was clear, but after a while

No

5. THEREFORE, THE THREE ICONS CAN BE USED FOR:

Activating video which explains how the application works

Activating the different ways of contents' exploration

Regulating the audio level

QUESTIONING

DRIVEN SCENARIO

Underwater scene:

1) Try to understand what you can do and how to move

2) Try to swim and get to the fragment of collapsed wall

A. Can the user swim?

-Yes

-Yes, with help

-No

B. Did the user understand that the current of the river moves him (if he doesn't swim)?

-Yes

-Yes, with help

-No

C. Was the goal successfully achieved?

-Yes

-Yes, with help

-No

Ca. If there were problems the user encountered can you describe them

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7. REFERENCES

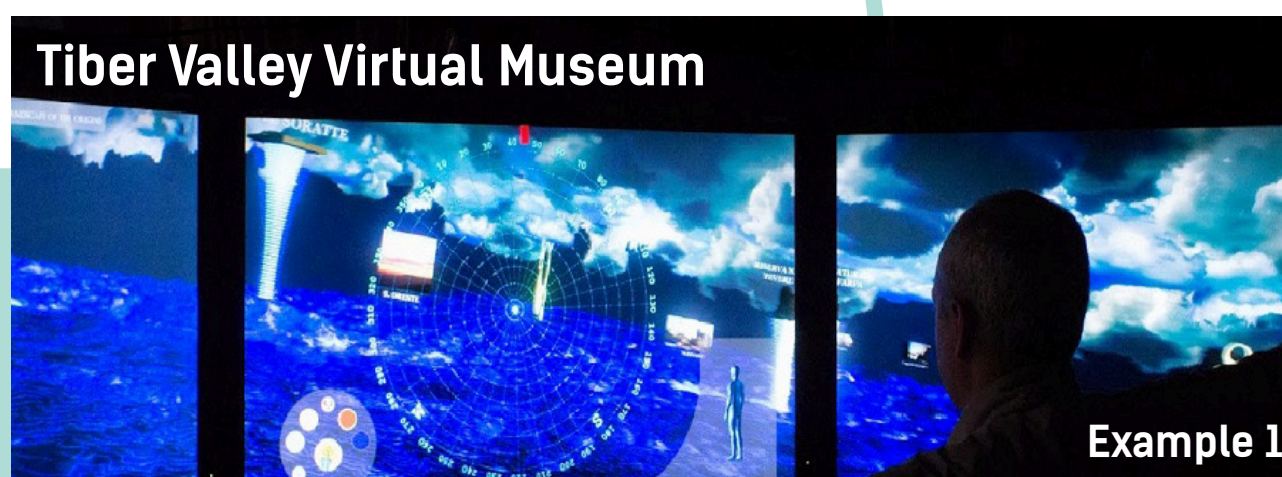
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6. OUTCOMES

- The relevance of the combination of quantitative and qualitative tools to have more material to compare with;
- The practicability of submitting driven-scenarios to analyze user's memorability and control over the system;
- The good intuition of dividing the public between active and passive users to better understand the public dynamics;
- The role of the operator is fundamental even if difficult to perform;
- Language used for the evaluation must be customized on the final target , the support of evaluation's delivery, the context of submission and the time at disposal.

5. CASE STUDY

- Both natural interaction applications (using Kinect sensor)
- Immersive environments with 3D reconstructions
- Ancient historical periods relived in 3D also with real actors



Instrument that implies two kinds of techniques: observation and direct interview. The visitor is asked to solve specific tasks and express his impressions or doubts by the thinking-out-loud method.

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In User Experience evaluation there are not "standardized" rules and ready-made solutions when dealing with VMs but still best practices.

