

HotPOI

Locative Exhibitions on Mobile Devices

ABSTRACT

The idea of a locative exhibition on mobile devices is a new method to present digital data in spaces, especially urban spaces. Based on a concept of POIs the new kind of exhibition opens up spaces and envisions interactivity.

General Terms

Documentation, Design, Experimentation, Human Factors,

Keywords

Locative Exhibition, Mobile Device, Interactive Maps

1.Introduction

A locative exhibition displays its artifacts not in a museum or another fixed location but rather exhibits the content on mobile phones or similar, when its user reaches a certain point or area in an urban space..



Fig. 1: General Interface with Map, POIs, and Annotations.

Displaying the main volume of an exhibition in digital form on mobile devices rather than in a museum's setup as physical presentation permits the visitor to crisscross a large area in order to combine the location with the exhibits, but only as digital samples. The system consists of two mandatory components, a location sensitive displaying device and a database.

2.Interface

The main interface is laid out on the maps provided by Google (Fig. 1). Besides their common interface technology like panning or zooming through maps additional annotation markers are displayed at each POI (Point of Interests). POIs are locations where a single object or a special piece of information is on display. Other annotation markers are for displaying the position of the visitant itself, may mark the home area, other guests (if there is a certain infrastructure) or moving objects for random events like a contact with a fairy, as we know it from gaming.

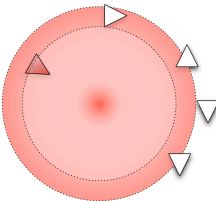


Fig. 2: POI

The idea is based very much on the concept of a POI. The center is location defined by a position in global coordinates. If a visitant enters at certain distance around the center, the POI is triggered and can be displayed (Fig. 2). It is of paramount importance that a POI does not release its content automatically and thus enforces concentration. There should always be an element of initiative action from the user besides the locative triggering action (Fig. 3).

If a visitant confirms a POI, the various contents are on

Fig. 3: Triggered POI on Map

display until the visitant either the contents reaches its end or leaves the POI, Then another distance to the center is active, the releasing distance. This value should be slightly greater than the triggering distance in order to avoid gagging. If the releasing distance equals the triggering distance, small movements or even the measuring inaccuracy of the device may trigger and release a POI at will. In addition to these defining functional values other values may be applied, like a lifespan, a visit count and more.

3.Content

There are two types of content here, the exhibits and the notes taken from visitants (Fig. 4). Outside the vicinity of a POI none of the data is accessible and can not processed. That space remains empty.

3.1 Exhibits

The central piece of each POI is the object on display here. As result of the digital presentation several different forms of renditions are available, visible as image and written text, audible as music and spoken text and combined visible and audible content certainly as movie. Additional interactions can be required, rules can be set up and so forth.



Fig. 4: Map, Content and Notes

3.2 Notes

Visitants may take visual and/or acoustic notes at certain points. Depending on the defined rules there they may type a text of certain length, take a shot with the camera, record a movie or tape some voice notes.

4.Interaction

Using an urban space requires interactions with the location, inhabitants and other participants (Fig. 5). With modern cellular phones visitants can interact with others on a locally, based on Bluetooth technology and also verbally or by eye contact, and globally using telephone and networking capabilities. Some POIs may act like a phone booth, while others are a kind of meeting points.

Fig. 5: POIs and Visitants

There is definitely a wide area of examination, but the concepts here are still in some state of contemplation, because a lot of testing is required here.

5.Conclusion

Digital presentations are well known, and the fact, that there are no -real- objects as in a common exhibitions are not really of concern. What matters is the unearthed potential of interactivity based on rapid changes and exchange of data. Thus the concept is strictly divided into the functionality of the POIs and their contents. The introduction of a dedicated , basically new prototype file-format puts this separation even further. A working prototype for iPhones is under evaluation, a simple demonstration could be set up. Main concern is always the content, because every exhibition depends on the substance of its exhibits, and neither on its site nor its technology, for the most of us.