



Panoptes

Overview

Panoptes is a digital exhibition-catalogue system which allows visitors to browse its content and dwell on details of images, read accompanying texts and follow threads of information. Panoptes builds upon the concepts of playful and aesthetic interaction combining functionality with playfulness and serendipity, thus offering an alternative to information kiosks used for browsing item collections.



Panoptes: A visitor blows at the windmill to set the system in motion

Description

The system comprises two framed touch screens, a webcam, a light sensor and a custom sensor, an augmented physical object, such as oil mill, ship's wheel, windmill etc. The larger screen presents a high resolution photo of the currently selected artifact/image. The large screen supports two types of interaction:

Hotspots: Each image can include any number of hotspots. If the user touches one of them, the corresponding area is highlighted and a word balloon pops-up with related information. If the user touches any part of the image that does not include a hotspot, then all the available hotspots are highlighted in order to provide feedback about their position.

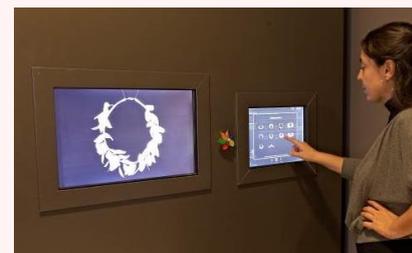
Magnification: If the user drags her/his finger on the image, she/he starts drawing a colored line with which she/he can circle an area of interest. When the user moves the finger off the screen surface, the selected area is magnified. The user can subsequently iteratively zoom into the selected area.

A visitor can browse all the available artifact either by using the sensor object or by touching the screens. The speed of the object affects the browsing speed but it may also trigger music pieces; rotation speed may affect the music playback speed if desired.

The smaller screen comprises a framed photo of the current artifact, visually linking its contents with those of the larger screen, brief information that depends on the artifact type, a descriptive title and a short text. The screen also offers buttons for browsing/navigating through the collection of



Exploring the main screen content



Using the small screen to navigate content



Magnifying a selection

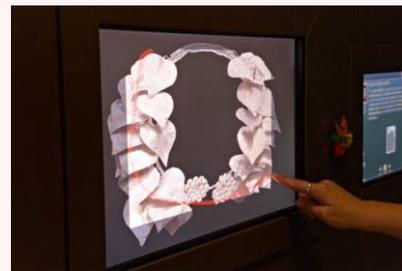
artifacts, accessing a gallery of all artifacts through which the user can select one for viewing, and language selection.

Above the screens there is a camera and on top of the wall a light sensor. The function of this sensor is to detect flash photography. In such a case, the web camera is used to take a photo of the visitor photographing the exhibit. This was initially meant to be just a fun “hidden” feature, but, eventually, as in situ observations have revealed, it became a very engaging interactive characteristic.

Apart from cultural heritage collections, Panoptes is available for commercial use in public spaces. For example, it has been installed as an innovative interacting system presenting traditional Cretan products and recipes (called “Oil Mill”).

Oil Mill incorporates a miniature stone mill, through which it is possible to browse through an introduction to Cretan diet and culinary products. In more details, users can browse a digital album about Cretan diet, by rotating the metal handle of the mill, while real oil flows from one end of the system. Users can also send information provided by the system (e.g., recipes, information about traditional products) by e-mail.

The system also comprises lighted glass showcases containing museum replicas of Greek pottery.



Defining an area by finger drawing



Oil Mill: The augmented physical object is a miniature stone mill

Target Domains

Panoptes is a powerful promotional tool for both Commerce & Marketing and cultural heritage domains.

Additional Information

Permanent public installations:

- Natural History Museum of Crete, Heraklion
- Tourism information Center, Municipality of Hersonissos
- Creative Crete - Airports and seaports
- Archaeological Museum of Thessaloniki

Related video:

<http://youtu.be/f22YTBqCtkw>, <http://youtu.be/VlwhaKiL5Ys>



Panoptes web page
www.ics.forth.gr/ami/project/panoptes/

Contact details: **Constantine Stephanidis**
cs@ics.forth.gr
www.ics.forth.gr/ami