TimeViewer

Overview

TimeViewer is an interactive system that presents information with temporal characteristics in a large scale display, while user interaction is achieved through remote gesturing.

Besides representing information as a traditional **two-dimensional timeline**, the system also supports three-dimensional information representation in a "**time-tunnel**", i.e., a corridor along which the events are placed with chronological order. User interaction in the time-tunnel is accomplished through full-body kinesthetic interaction.

TimeViewer offers a rich and immersive visualization of any kind of **temporal information**. The content of the system can be provided through existing formal data models, while the visualization is automatically created.

A user interacting with the system

Application interface of Heraklion Archaeological Museum

Target Domains

The system ensures rich and immersive user experience, while providing information in a clear and unambiguous manner, and is suitable for the info-tainment domain, which combines information and entertainment.

Representative application domains for TimeViewer are museums and cultural heritage institutions, which contain temporal information that can be expressed in an impressive and meaningful way.

Furthermore, the system is mainly targeted for use in public spaces, intriguing users to engage with the system.

The two dimensional view of TimeViewer

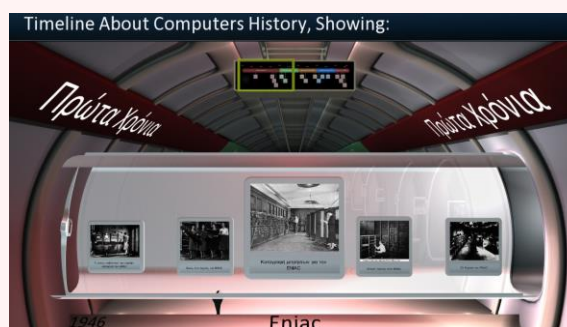*The time-tunnel view of TImeViewer*

Description

The system supports both temporal (periods) and semantic (categories) categorization of events in order to enhance the clarity of the information displayed.

The two-dimensional representation is suitable for providing an overview of the displayed information, whereas the time-tunnel addresses the need for sequential exploration of the displayed events. In the time-tunnel view, the title of each event is placed at the tunnel's floor, while users can open a "showcase" host additional multimedia elements, such as text, images, videos and three-dimensional models related to each event. The system supports both two dimensional and stereoscopic display through the use of NVidia's 3D Vision glasses.

The implementation of this system involves computer vision technologies.

Visualization of an event's multimedia information in the two dimensional view

Visualization of an event's multimedia information in the time-tunnel view

Additional Information

Permanent public installations:

- Heraklion Archaeological Museum
- National Research Foundation "Eleftherios K. Venizelos", Chania

Temporary public installations:

- Researchers' Night 2016, Heraklion

Related Video: *http://youtu.be/l1ehOj-zaP4*

TimeViewer web page
www.ics.forth.gr/ami/project/timeviewer/

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