Challenges facing school museums in a time of globalization and digitization, the case of the museum of education of the University of Crete, Greece- *e-Nostos Project»*

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Introductory Concerns. Basic Concepts 1/2

- **School museum**

    - As a **cultural space** of **non-formal learning and experience**, explores the concept of historical culture both at the level of relations with the educational past and its dealing and the level of its acquired and mediated meanings with the present.

    - As is well known, museums contribute to the **formation of cultural identities due to the socialization they perform**.

Introductory Concerns. Basic Concepts 2/2

- **Globalization**

  - The globalized international environment creates the conditions for open exchange, transport, communication, for direct information and easy access to knowledge, in this way a sense of a unified, internationalized world is created, where easy and direct communication and exchange becomes a goal of vital importance.

- **Digitization**

  - Therefore, new technologies can be an interactive, creative and simultaneously liberating means for the interpretive approach of historical culture.

The Museum of Education, of the University of Crete

- It has been operating for 11 years

- More than 25000 visitors

- It seeks to adapt to the needs of a globalized international society

- It operates various programs: educational, cultrural, research etc.
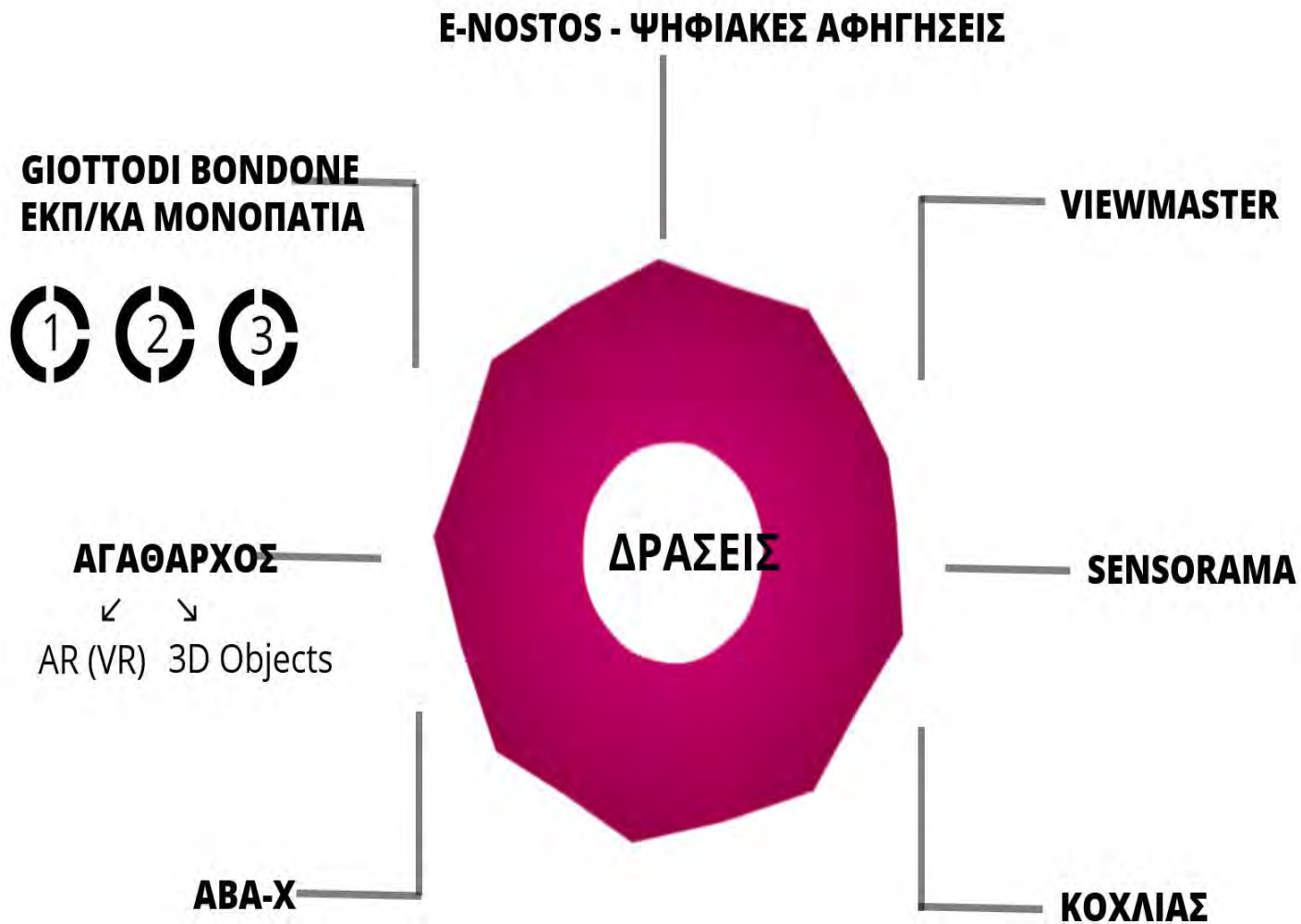
ESPA Research Project

- One of which is: the «Augmented Experience with New Digital Systems for Educational Tourism in Museums-X.E.N.I.S.E.U.M. (T1EΔK-04930 – K.A. 10081)

- Scientific Responsible: Prof. Anthony G. Hourdakis, University of Crete-Greece

E-NOSTOS - ΨΗΦΙΑΚΕΣ ΑΦΗΓΗΣΕΙΣ

GIOTTODI BONDONE
ΕΚΠ/ΚΑ ΜΟΝΟΠΑΤΙΑ

1 2 3

VIEWMASTER

ΔΡΑΣΕΙΣ

ΑΓΑΘΑΡΧΟΣ

AR (VR)   3D Objects

SENSORAMA

ABA-X

ΚΟΧΛΙΑΣ

Completed Projects:

Desmy: Site construction of project deliverables (Web design) - Creation of a virtual museum through the utilization of original, innovative applications designed to create digital substitutes and present multimedia representations with museum objects in virtual exhibitions both within and outside the MoE-X

Giotto di Bondone: Linking of the museum with educational cultural paths (virtual and physical) based on educational material that will refer to important periods in the history of Modern Greek education (Ottoman domination, Cretan state, interwar period, German occupation).
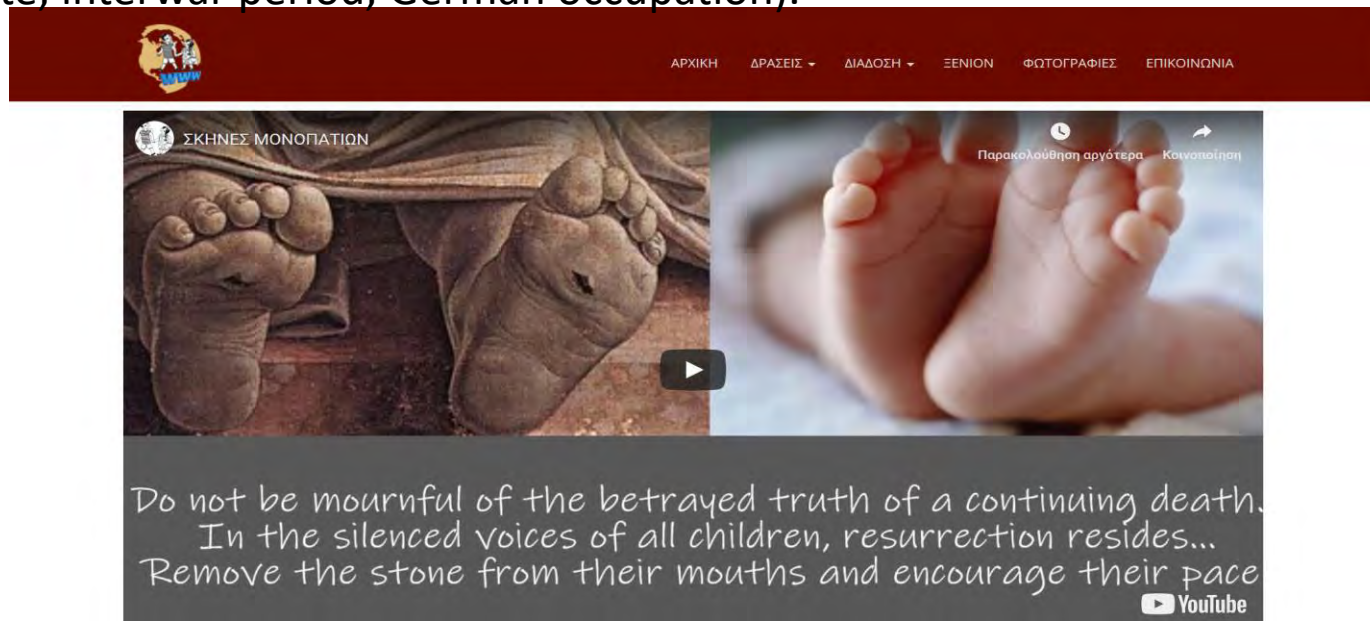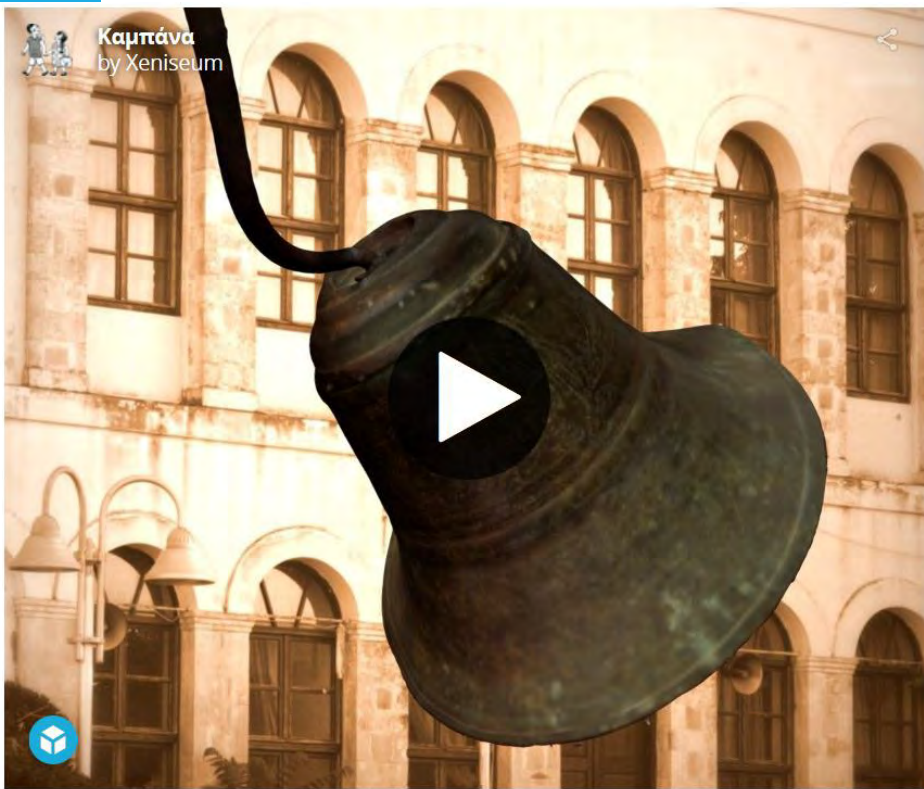
Καμπάνα
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on **Sketchfab**

Κονσέρβα
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Agatharxos: Presentation of the school environment in the physical space through augmented reality for the representation of selected school objects. The application mentioned above consists of the Augmented Reality (A.R.) and the 3D digital representation of selected MτE-X exhibits, which activate memories, affect and arouse the experiences of the visitor. The latter interacts with them through the interface.

E-Nostos: Creation of digital narratives as a recreational medium that stimulates interest and engages the visitor, focusing on experience and memory

Κουρευτική Μηχανή
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Πηλήκιο Μαθητικό
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Μαθητική Σάκα
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Viewmaster
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Θρανίο
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Projects in progress:

Aba-x: The digital application (aba-x) offers a virtual immersion experience. Selected exhibits of the MoE were added to a virtual environment, using augmented reality technologies. The user can "experience" a pre-directed virtual-immersive environment with the help of a VR mask, aiming to critically recruit specific aspects of the history of modern Greek education

https://youtu.be/Ym7-CFh3k5U

View master: Gamification of objects in museum collections to develop the creative thinking of users and enhance their museum experience through personal experience and playful learning

Sensorama: Creation of interactive e-books from old school textbooks of the museum and improving / upgrading digitized pedagogical material from documents of the old school

Kohlias: Sensory and intellectual access to the museum is facilitated through the use of digital media. It becomes accessible to the visually impaired and those with learning difficulties through the provision of alternative interpretative means.

Sub-project E-Nostos: Purpose

- The deliverable sub-project «E-nostos» (D.3.3/WP3) was implemented:

    - As an attempt to **promote the social and educational historical past** with the aim of creating digital narratives, which activate the **memory**, **concern**, and **emotions** of participants (listeners/visitors, interviewees, researchers) with reference to the exhibits of the MoE of the University of Crete.

Further goals of the Program

- Within the context of the Program "Explore-Create-Innovate", amongst others:

  - the modern people's relationship with educational cultural heritage is redefined in a contemporary, attractive and interactive way, with the use of new technologies (in the prospect of 'augmented experience through the use of new digital systems for educational tourism in museums').

- **the exploration and activation of memory and emotions**,

- the self-reflection, as school experiences and memories of the past are invoked.

- This process as an alternative and innovative approach gives the digital visitor the opportunity to not only enrich his/her pre-existing educational and museum experience, but also, through his/her personal intervention (interaction, empathy) to creatively link the past and the memories.

Further goals of the program

- An additional goal is the promotion of historical pedagogical and educational knowledge by creating long lasting cultural bonds.

- Simultaneously, the study of history and the profession of the educator and education is expanded, important testimonies and documents related to the Greek and international educational and school reality, as well as their promotion as an important historical parameter for education and culture today and modern education specifically.

E-Nostos: principles

■ More specifically, based on the principles of:

Creative writing

school experiences

the use of **modern technology**

memories of the past

E-Nostos: methodology, sample

- In order to achieve this goal, 8 interviews were taken (3 retired teachers, 1 retired police officer, 1 retired seamstress, 1 retired homemaker, 1 graduate student of Egyptian descent, 1 private sector employee of Albanian descent).

- The sampling was carried out to represent different age groups (ages 30 to 90 and older), different professional groups, of different origins. Gender was also a criterion.

E-Nostos: methodology, sample, questionnaire

- The sample was chosen from the wider social space in Crete based on the availability and the criteria of diversity concerning age, sex, profession, origin, and time availability, on the other hand, with regards to their personal experience with the museum and the degree of appreciation of the cultural museum experience.

- Interviews/narrations were conducted using a semi-structured questionnaire containing topics related to **personal**, **family**, **social** and **professional** life. Interviews/narrative were videotaped using new technologies.

E-Nostos: methodology

- Regarding research/quality, the videotaped interviews/narratives, of the particular deliverable, were processed and encoded through the method of content analysis based on concept, key phrases aimed at defining the main purposes and goals of linking the past with the present and recalling the personal and professional cultural experience of the interviewees.

- The analysis led to the creation of four key thematic units:

  - School years,

  - Family and social life,

  - Professional life and

  - Personal evaluation of the educational institution with parallel comparison of the past with the present

E-Nostos: methodology

- The above categorization with the content analysis mentioned above was enriched by means of:

    - surveillance (video, audio, photos),

    - making the user's contact with the objects experiential and

    - playful (personal stories, memories and emotions from his/her educational past).

# E-Nostos: methodology

- On a more technical level:

  - video interviews / narratives of the particular deliverable were edited and encoded with TechSmith's "Camtasia" video editor and Adobe "After Effects" for the development of special effects.

  - Adobe Photoshop was used to process the images that were needed in .jpg .png .gif files.

  - For audio editing the program Audacity was used and

  - for the downloading of map image files, "Google Earth Pro" was used. Videos were exported in .mp4 format with a 1920x1080 analysis of 30fps.

  - YouTube was used to upload the files and the code was then embedded in the Xeniseum website (www.xeniseum.org) in order for them to be displayed.

The program «e-nostos»

■ E-nostos is online. The website is:
https://xeniseum.org/

A short example..
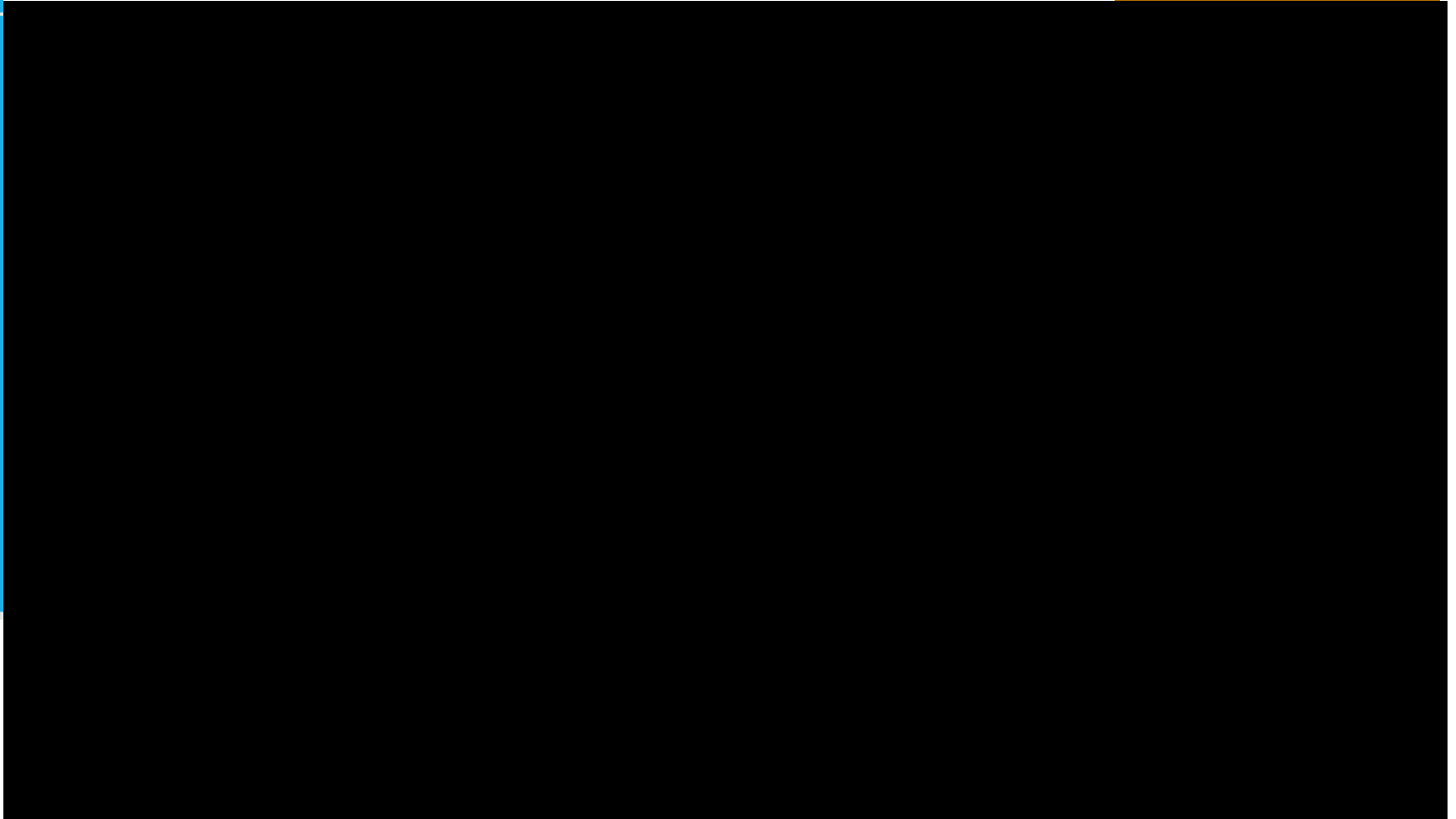
Conclusions 1/2

- In the context of the museum of education of the University of Crete, invokes memories of the past e-Nostos creates and promote:

    - the framework of digital narration which is based on multimedia applications and the visitor's ability to intervene.

    - the discovery and construction of knowledge, attitudes regarding the past that extend to the present and the emphasis on the "memory of the past".

    - challenges the visitor, his/her memory, emotions and the link of his/her story and memory in order to strengthen his/her historical, educational and cultural conscience and connecting all of it with the modern cultural educational context.

Conclusions 2/2

- These 'live' digital narratives associated with the educational past, extending to the present, are an example of the use of past experience in the context of modern education.

- Within the above context, we can support that the museum of education and history of education extending to the present, is a real challenge for the 21st century, the era of globalization and digitalization for the new generation.

Thank you for your attention!