

Electronic Imaging & the Visual Arts

EVA 2021 Florence

PROCEEDINGS

Editor: Vito Cappellini



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PROCEEDINGS

NEW TECHNICAL DEVELOPMENTS
& APPLICATIONS

ADVANCED DIGITIZATION FOR THE PROMOTION OF THE MORAL VALUES UNDERLYING THE EUROPEAN UNION

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Abstract – The European Union shares common moral values with its members from the beginning of its history along with its cultural heritage. It is highly important to track these values, to study their meaning’s evolution across space and time and finally to diffuse them in a concrete and well-organized way. The newly launched VAST project will contribute to the promotion of these values using advanced digitisation, based on three distinct time periods of the past and will combine a storytelling platform with crowdsourcing, facilitating the platform’s users to create their stories and re-use the provided contents, disseminating these moral values.

INTRODUCTION

European history counts many centuries back, proved by a myriad of cultural resources and values crossing and evolving through the centuries. The use of technology and especially of the advanced digitization can contribute to a type of unified, coherent ‘data collection’ supported also by enriched metadata of high quality. Museo Galileo has extensive experience in this type of digitisation including several integrated archives and resources such as the Gallileo//thek@[1] and virtual exhibitions [2].

MORAL VALUES IN THE EUROPEAN UNION

The values’ main characteristic is that they reflect people’s identity and vice versa. The common legacy, the collective memory and the perception of oneself and of the others are shared in a similar way by every European, indicating simultaneously that these characteristics that connect them prevail those that divide them. This sense of unity derives from the combination of numerous values that have evolved in the history of time functioning in a common and fundamental way for the European Union such as: human dignity, freedom, democracy, equality, rule of law, human rights [3]. Accordingly, a European research project focused on moral values started before the end of 2020.

EUROPEAN PROJECT: VAST – VALUES ACROSS SPACE AND TIME

In December 2020, a new Horizon 2020 European research project named **VAST**, acronym for **Values Across Space and Time**, was launched [4].

Eight partners from five European countries collaborated at an international level for the VAST project; two from Italy, the Museo Galileo which will collaborate closely with the Università degli Studi di Milano, three from Greece among which the National Center for Scientific Research Demokritos in the role of the project coordinator, as well as one of each of the following countries: Cyprus, Portugal and Slovenia [5].

The ambition to bring the values on the cutting-edge of the advanced digitization field, is in the core of the VAST project. As far as the timing to discuss them and diffuse them, the present time is considered to be the most appropriate. As EU President Ursula von der Leyen recently said in her Agenda for Europe: “We must defend our common values and uphold the rule of law ... and export our values across the world” [6].

The use of state-of-the-art technologies will lead to the digitization of tangible and mainly intangible assets such as stories, personal experiences, folktales, fairy tales, etc. VAST aims to address how the values have been changed or evolved across space and time and how they are communicated and perceived by audiences in cultural and educational activities related to theatre and educational programs.

In order to achieve this objective, at first level, VAST will analyze the European values in the narratives of three very important periods of the past which also involve three different forms of communication: the time period of the ancient Greek tragedy and comedy, the Natural Philosophy texts of the 17th Century and the Folktales. This categorization is very important since during these timelines great changes have been made in people's perception that concerned numerous values and their transformation.

At a second level, using a methodological process, VAST will expose the audience to moral values, collecting and digitizing the experiences of three main categories: a) the experts in the narratives of different time periods and geographies, mainly from the social sciences and humanities' sectors, that will identify and annotate the incorporated moral values included in the resources, b) those in charge to communicate/transmit values i.e., artists, directors, culture and creative industry institutions, museum curators, storytellers, educators, etc. and c) the respective audiences like spectators, museum visitors, students, pupils.

This will lead to the creation of a storytelling platform [7] combined with crowdsourcing. VAST will provide the storytelling application allowing the users to remix the content together with pre-selected tags of values, reinforcing its dynamic characteristics for the future observations too.

Pilot cases

In VAST three pilots will be implemented, showing the benefits of the project's technologies in the field of advanced digitisation and assessing its impact regarding the target users: i) scholars and researchers, ii) the communicators of moral values and iii) the general audience. Each pilot will deal with moral values detected in the narratives of the already mentioned periods: the Greek tragedies and comedies and their modern adaptation, the 17th century books of natural philosophy and utopian thought and the European folktales.

Every Pilot is divided in two parts, the past of values and their present. Regarding the past, the aim is the analysis and digitization of the values' evolution at that period of time. The 'present' part, will include the use of the previous findings as a guidance for the creation and enrichment of special programs for the museum and theatre audience. As a next step, the public's gained experiences will be recorded through questionnaires and other monitoring processes and digitized.

The scope is to trace if the values of that past still exist nowadays, how they have been transformed through time and space and if the activities organised by the pilots could have an effect on the understanding and perception of the studied values.

Metadata enrichment

Another aspect of the great importance of the VAST project is its significant contribution in the long-term effort of the different stakeholders in the metadata enrichment.

It is true that numerous cultural organizations (i.e. museums, libraries, research projects and institutions) have invested a lot of their resources to create digital copies of their cultural assets. The goal was dual; maintaining intact the appearance of the artefact and at the same time use effectively any web applications and virtual exhibitions for presenting them to a wider public. In some cases, the digital asset is correlated with a set of basic metadata, curated in a non-automated way, in order to regain the digital copy of these cultural objects. These metadata encode simple properties of the objects, already available in most collections, facilitating their standardization in machine-readable formats, with the scope to reduce the existing fragmentation and collect them under a common catalogue.

VAST invests on the idea that the enrichment of the current metadata with additional information layers focused on the moral values, will increase the knowledge for the existing artefacts, resulting in a more complete picture. For this reason, VAST proposes a “new data format”, based on semantic Web technologies. These will enable the annotation of the digital artefacts with new types of knowledge, built on the moral values that are considered fundamental for European Union and are common for all member states, such as the respect for human dignity and human rights, freedom, democracy, equality, and the rule of law (as defined by the Treaty of Lisbon, signed in 2007 [8]) including also additional key values such as dialogue and tolerance.

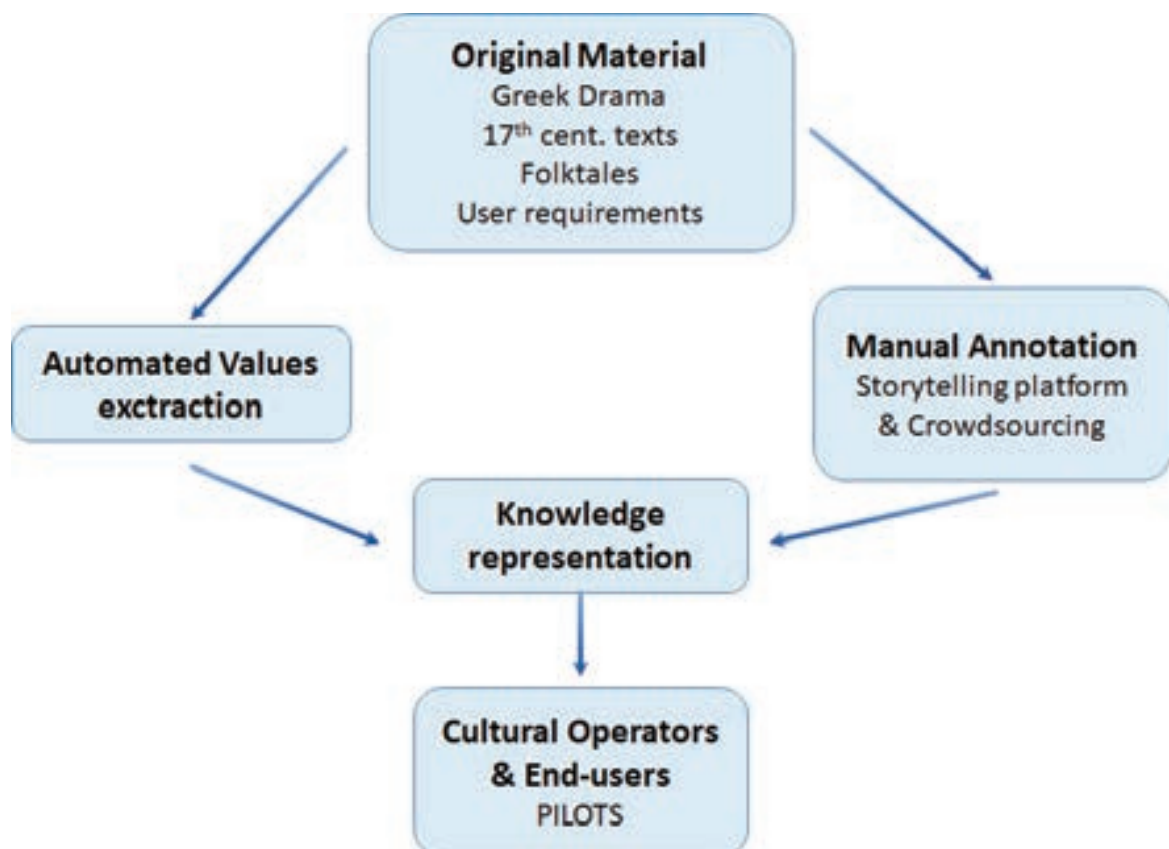


Figure 1: VAST methodology

MUSEO GALILEO'S ROLE

The Museo Galileo is a partner of the VAST project as the heir of a European scientific tradition promoted by the Grand Dukes of Tuscany between the 16th and 18th centuries.

For this reason, the museum's participation in the project is very important, since it will implement educational activities and exhibitions based on values found in 17th century resources.

Museo Galileo will collaborate closely with Università degli Studi di Milano, -in charge of the study and annotation of 17th century texts- to the creation of VAST Pilot ‘‘Values in 17th century books of natural philosophy and utopian thought’’; its scope is to trace if these past’s values, inherent in the scientific instruments and texts, still exist nowadays and make comparisons with reference to the popular existing image of science.

The importance of the role the Museo Galileo plays in this project lies in two main points. Unlike folktales and Greek tragedies, natural philosophical writings were not conceived to deal with moral values, but rather to analyze scientific laws and instruments, discuss new methods of research, as well as spread scientific novelties. Explaining to a public of students and families the moral values that emerge from these texts requires the adoption of new strategies of communication and innovative tools. Moreover, these same moral values will be conveyed not only through texts/words but also and mainly through scientific instruments, which will thus embody a rather different set of meanings.

These concepts will be addressed by analyzing works that involve the early modern idea of the discovery of new lands and new earths in the sky, the 17th-century lunar travels and utopian thought, as well as the emergence of the concept of tolerance and equality in scientific writings. These subjects will be dealt with by drawing on three main sources: scientific instruments preserved at the Museo Galileo, texts, and visual materials (i.e. engravings, maps, paintings).

Furthermore, Museo Galileo will contribute to the creation of a methodological tool to be used in the forming of the digitisation process of VAST, at an advanced level. This will be achieved by conducting a user survey focusing on three types of key actors: the researchers, the educational staff as well as the audience. Through it, the user requirements and expectations will be detected and as far as the technical aspect is concerned, the functional and nonfunctional elements will be exposed. Finally, these findings will help to extract information about the impact of the transmitted values and their evolution, enriching at the same time the metadata of its content.

CONCLUSIONS

VAST project will help to foster Europe’s tangible and intangible cultural inheritance using advanced digitization. Through it, there will be a better understanding of the shared common values that characterise the European Union. The conducted research of values’ past will help to better understand their present, through their well-structured maintenance and analysis, shaping simultaneously the path for their spread with the application of future activities and metadata enrichment.

This digitisation process will not only help to preserve and diffuse this European common culture and values in a more efficient way, observing and measuring their changes simultaneously, but can also have, in a holistic way, a positive impact on the different development sectors: economic, social, environmental and sustainable.

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