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**TRANSNATIONAL PORTALS FOR CULTURE
ORIENTED TOURISM:
THE EXPERIENCE OF THE MEDINA PROJECT**

**Franca Garzotto, Politecnico di Milano, Italy / Paolo
Paolini University of Italian Switzerland & Politecnico di
Milano, Italy / Marco Speroni, University of Italian
Switzerland**

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Abstract

Culture-oriented tourists are a new, emerging, category of travelers. They live a vacation as a learning experience - an opportunity to discover unexploited resources of an area, including folk traditions, habits of the everyday life, rituals, history, or gastronomy. They look for original, engaging and customised travelling proposal. The MEDINA project (partially funded by the European commission) aims at developing a transnational web portal to promote culture-oriented tourism in the Mediterranean basin. The portal addresses multiple aspects of cultural heritage, highlighting the local identify of the fourteen Mediterranean countries involved in the project and pinpointing the trans-Mediterranean dimension of their civilizations, their commonalities, and their cross influences. MEDINA will also develop the organizational and technological infrastructure for the sustainability of the portal, after experimental phase.

The paper discusses some of the key MEDINA issues

Keywords: Culture-oriented tourism, web design, multimedia editorial process

Résumé

Les touristes culturels sont une catégorie nouvellement émergente de voyageurs. Ils vivent leurs vacances comme une expérience où l'on apprend et l'on découvre toutes les ressources d'une région comme ses traditions, ses habitudes quotidiennes, ses rituels, son histoire et sa gastronomie.

Ces touristes cherchent toujours des propositions originales, intéressantes et adaptées à leurs exigences de voyage. Le projet MEDINA, qui est financé en partie par la Communauté Européenne, se propose de développer un portail transnational sur le Web qui puisse encourager le tourisme culturel dans le bassin de la Méditerranée. Le portail représente plusieurs aspects des différents héritages culturels des quatorze pays méditerranéens qui font partie du projet. Il souligne aussi la dimension trans-méditerranéenne de leurs civilisations, leurs racines communes et leurs influences réciproques. Le projet MEDINA développera aussi les infrastructures d'organisation technologique pour la pérennité du portail après la phase expérimentale. Cet article présente quelques parties du projet MEDINA.

Mots clefs: tourisme culturel, portail web, édition multimédia

Introduction

Globalization is not an invention of the third millennium. At a different scale, ancient civilization in the Mediterranean basin had a “global” nature (considering the fact that people believed that the world ended at the Herculean Columns - now Gibilterra). Continuous migrations, colonization, and commercial travels, induced a sharing of human experiences in this area, which is reflected by the commonalities that can be discovered in many aspects of the culture of the Mediterranean countries, from figurative art, architecture, craft, habits, folk traditions, religion, rituals, food. One purpose of the MEDINA project is to exploit multimedia and web technology to highlight the transnational nature of the multiple cultures in the Mediterranean basin, to improve the mutual understanding between people of different countries in this area, and to contribute to the creation of a Mediterranean identity.

MEDINA (the acronym stands for MEDiterranean by Internet Access), partially funded by the European Commission, includes seventeen partners from fourteen countries in the Mediterranean area: national or regional tourism offices, ministries of culture and tourism, universities and private corporations, etc. It started in 2002 and will end in march 2005.

MEDINA wishes to support a new emerging form of tourism, oftentimes called “cultural tourism”. Traveling, for cultural tourists, does not mean just relaxing on a beach or visiting standard tourism destinations. Cultural tourists live a vacation mainly as a cultural experience – an opportunity for increasing their knowledge. They look for non conventional places and enjoy multiple aspects of a territory; they love to explore the global territorial resources’ complex and to discover the material and immaterial cultural heritage of an area; they interpret the notion of culture in a broad sense - including environmental and landscape attractions, historical, artistic, archaeological, folkloric aspects, traditions and rituals, handicraft objects and activities, gastronomy, etc. Unsatisfied by conventional tourism packages, cultural tourists tend to design their own itineraries. They look for information that can inspire the choice of where to go and help them how to organize their own tour. For cultural tourists, the preparatory phase of a

vacation is a learning experience per se. They enjoin reading about the places of their future visit and about the related aspects of the local culture, both in a national perspective and in a wider civilization context. When they return from their travel, they may look for more readings read about the cultures they have been exposed to, and may start dreaming about the next tour and drafting some ideas for a future traveling experience.

MEDINA is based upon a federation of national web sites (one for each project partner country) and the MEDINA portal, integrating (part of) the information of the national web sites. The overall system provides cultural and tourism information about the heritage of the Mediterranean basin: each national site focuses on the cultural heritage of a specific country and provide country specific contents. The MEDINA portal highlights the common cultural background of the different countries, and the contributions of the different civilizations. Furthermore it acts as a “promotional gateway” towards the national web sites.

The project is also developing a methodological, organizational, and technical infrastructure, in order to support both the systematic production of multimedia contents by the various partners and the sustainability of the overall system after the experimental phase.

The rest of the paper will discuss the requirements and the design of the overall MEDINA system, and the strategy for content development.

MEDINA Stakeholders Requirements

In any software development project, a fundamental step is the analysis of stakeholders and of their goals: a stakeholder, in the software engineering terminology, is any entity - individual or institution - who has some interest in the system under development. From this analysis requirements, i.e. descriptions of what the system should do, can be derived. In MEDINA, the stakeholders analysis has been carried on using scenario-based requirements analysis (Carroll, 2000) and the goal-oriented requirements model for web applications named “AWARE” (Bolchini, 2003b). The three main stakeholders addressed by MEDINA, and their multiple goals, are depicted in figure 1.

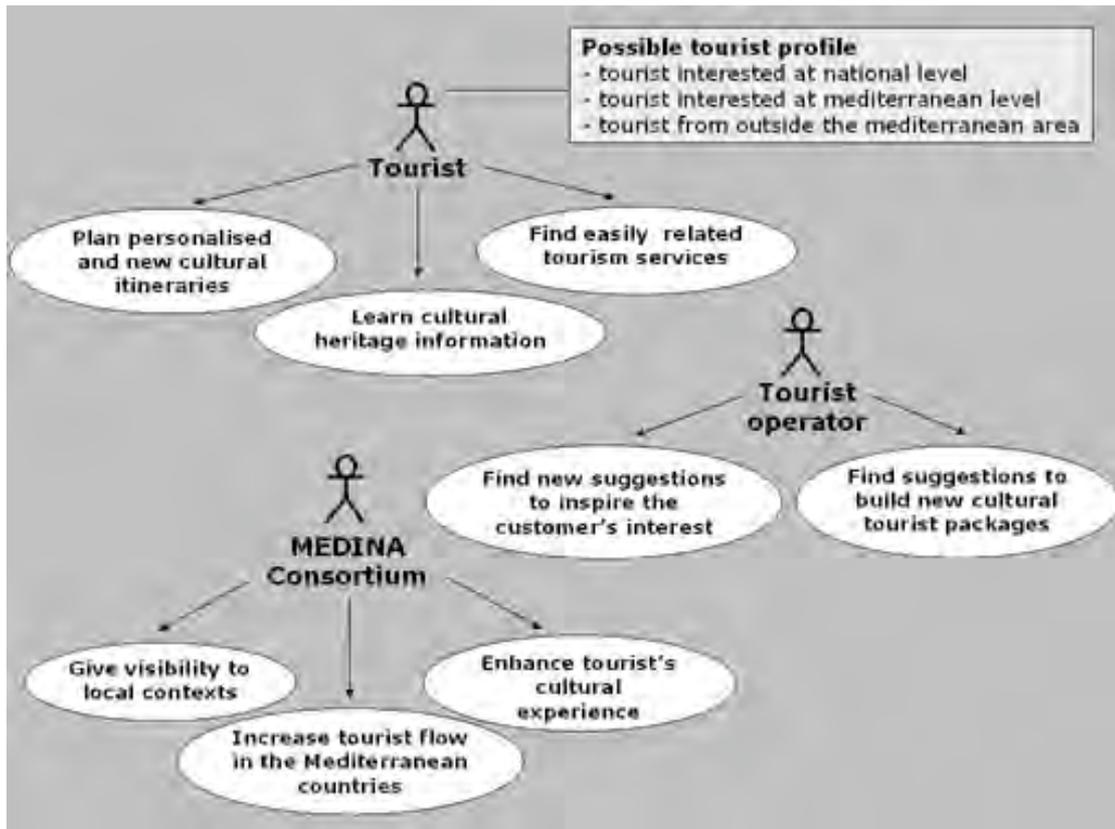


Figure 1 – MEDINA main stakeholders and goals

Cultural tourists

This category of stakeholders has been discussed in the previous section. One of their main goals is to directly organize their trip in one or more Mediterranean areas and to follow personalized itineraries without going through the standardized roadmaps of tour operators. They want to learn about the culture, in all its various aspects, of Mediterranean countries and of the whole basin, to discover the cultural relations among different areas, and to easily find tourism information and services (e.g., for direct booking).

Tourism operators

These professionals of the tourism business want to attract new customers and to increase the tourism demand. They look for suggestions to improve the description and the itineraries of their existing packages (thus inspiring new customers' interests) or to design new itineraries.

National or regional tourism offices, ministries of culture and tourism participating in the MEDINA project.

These institutions have more general socio-political goals: to give international visibility to their national cultural heritage, to increase the tourism flow to their country, to enhance the experience of visitors, to promote the Mediterranean identity.

From the stakeholders analysis we have derived a number of requirements, the most important of which being probably the following: the system should provide very rich and heterogeneous cultural content. Contents should deal about places outside the standardized tourism routes and cover all aspects of cultural heritage, from architecture to figurative art, from environmental and landscape attractions to historical, archaeological, folkloric aspects, from traditions and rituals to artisan objects and activities, from gastronomy to religion. Contents should be complemented with links to practical tourism information (typically available in existing web sites) and tourism services of the various Mediterranean countries. Contents should also highlight the Mediterranean dimension of each national culture. Material about national heritage elements should be integrated with contents that pinpoint their transnational context, that emphasize the common background of the cultures in the Mediterranean basin, the contributions of each country, and the relationships among the different Mediterranean cultures. Finally, the system should provide cultural itineraries on diverse themes both within a single country and across different geographic areas.

Next section will discuss the design solutions adopted in MEDINA to meet the above requirements.

The MEDINA Design Approach

The information architecture of MEDINA is founded on a set of general modeling concepts: the notions of Interesting Spot, Axis, Thematic Pathway, Cultural Framework.

An interesting spot is any topic which is related to the cultural heritage of a specific country and can be of interest for a cultural tourist. Example of interesting spots are “The olive oil production in Tuscany” or “The hammam in the Tunis Medina”. (“Hammam” is known as “Turkish Bath” in Western countries, while Medina is the Arabic term for ancient town center).

An axis defines a broad category of interesting spots. So far the following axes have been defined: material heritage, performing art, folk tradition, food and gastronomy, handicraft, ritual, practical info.

A thematic pathway (pathway for short) models a virtual itinerary about a cultural theme. It is defined by a collection of interesting spots (of different cultural axes), and includes a general introduction that presents the pathway subject. For example, “The Myth of Eros” pathway may include a description of the myth of Eros in general, and a set of interesting spots about paintings, places, buildings, traditions, rituals, etc., related to this myth.

A Cultural Framework is a collection of pathways concerning similar themes (e.g., “Mythology”, collecting all pathways about myths and divinities).

An interesting spot can have a national relevance only, or also a transnational relevance. For this reason, the MEDINA information model assumes that an interesting spot is presented under a National perspective and, when it is relevant at Mediterranean level, a Mediterranean perspective. The two perspectives are nothing but different descriptions of the same topic (in terms of content, level of details, communication style). While the national perspective contains descriptions related to the national culture of a single country, the Mediterranean perspective provides content and references that highlight the transnational aspects of an interesting spot and its relationship with similar topics in different Mediterranean countries.

Similarly, pathways and cultural frameworks on a given theme can be defined both at national level and at Mediterranean level. We include, for example, “national” pathways about “rupestrian civilization” (i.e. culture related to human beings living in caves) for Tunisia or Italy, as well as a Mediterranean pathway “Rupestrian civilization in the Mediterranean basin”. A national pathway collects the “national perspective” of the interesting spots (e.g., rupestrian paintings, rituals, agro-pastoral habits, etc.), that are related to the rupestrian civilization in a specific country. The Mediterranean pathway, instead, introduces the rupestrian civilization theme in a Mediterranean, transnational context. It collects the interesting spots related to rupestrian civilization in different countries and have some common features. A Mediterranean pathway uses the “Mediterranean perspective”, for each interesting spot. Further examples of Mediterranean pathways are shown in figure 2.



Figure 2-Mediterranean pathways in the MEDINA portal

The two-levels (national and Mediterranean) representation of cultural heritage of the MEDINA design approach is translated into a system architecture which comprises a "federation" of national web sites integrated through a Mediterranean portal (called MEDINA portal).

A national web site focuses on the cultural offers of a specific country. It contains national cultural frameworks, national pathways, description of interesting spots under the national perspective, and links among them. The MEDINA portal provides a harmonized Mediterranean perspective to the cultural heritage of the different countries. By providing Mediterranean frameworks and pathways (see figure 2), it highlights both the common cultural background of Mediterranean countries and the individual contributions of the

different civilizations in the Mediterranean basin. In addition, the MEDINA portal works as a “bridge” towards the national web sites, as depicted in figure 3.

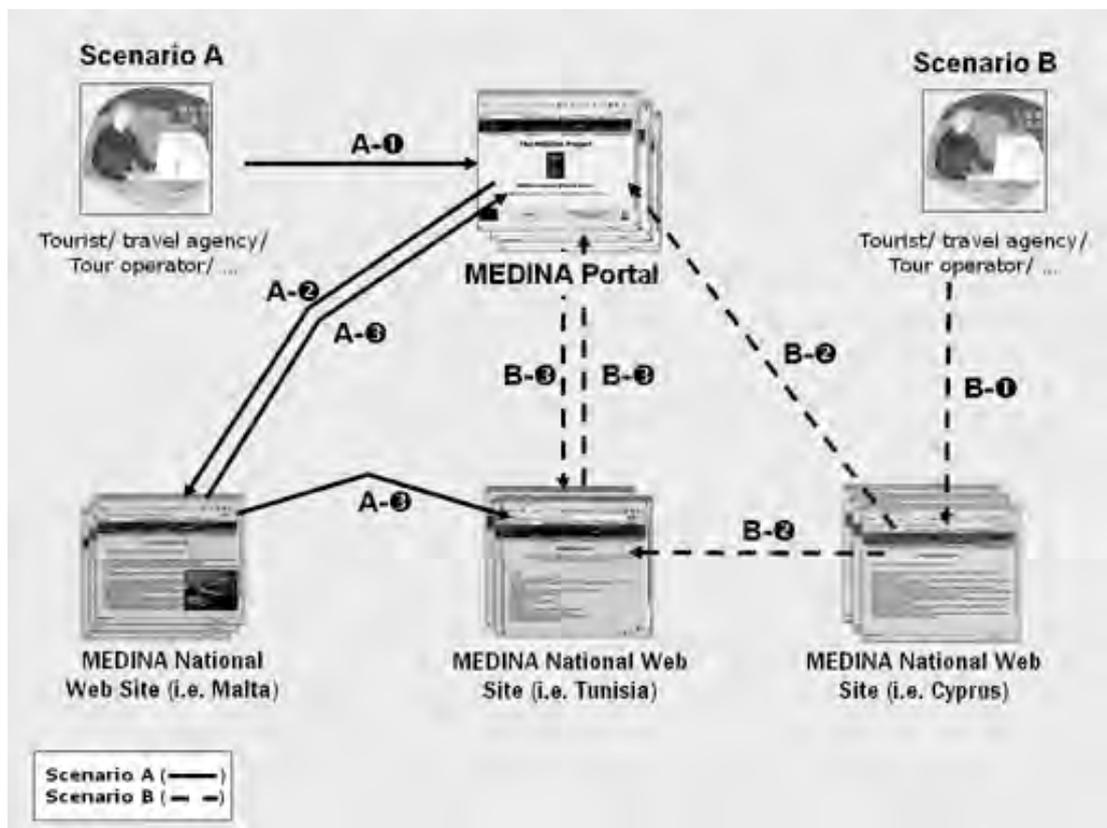


Figure 3– User scenarios interacting with the overall MEDINA environment

By accessing the system through the MEDINA portal (figure 3 - scenario 1), users can explore Mediterranean cultural frameworks and Mediterranean thematic pathways. They offer “virtual visits” of different themes, first introducing the Mediterranean nature of a theme, and then bringing the user across interesting spots of different countries. To get more information about a theme or topic, users can follow the MEDINA portal entry points towards the national websites, where they can find the same topic presented under the national perspective, as well complementary contents and links.

By accessing the system through a national site (figure 3-scenario 2), users can explore the virtual itineraries suggested by national pathways, discover the interesting spots of a specific country on a specific theme, and browsing across interlinked national contents. At any point, they can move up to the upper level of the MEDINA portal, to explore the

theme discussion under a Mediterranean perspective, or they can access related contents in a different national portal.

As an example, let us consider the Mediterranean pathway - “Culture of bread” - in the cultural framework “Dishes and cooking”. In the MEDINA portal (see figure 4), the theme of bread is introduced at a general Mediterranean level. The pathway collects interesting spots under the axis “Gastronomy” or other axes such as folk traditions or rituals, each spot dealing with bread related topics in a different country. By exploring this pathway, users can understand the commonalities and differences among the various types of bread in the different countries, and their relationships with other cultural aspects.

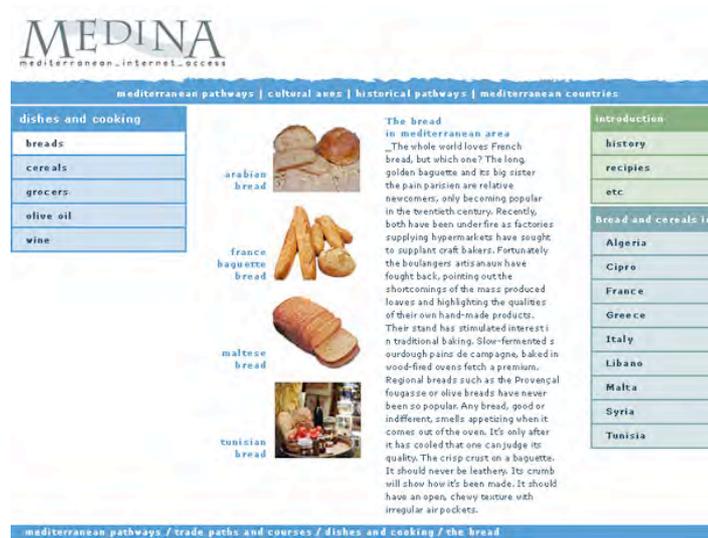


Figure 4 – The Mediterranean pathway about the bread culture

By following a links such as “Bread and cereals in Tunisia”, users can access the Tunisian national site (see figure 5), where they can find detailed information about the Tunisian bread and links to other relevant information (including Tunisian folk traditions and handicraft).

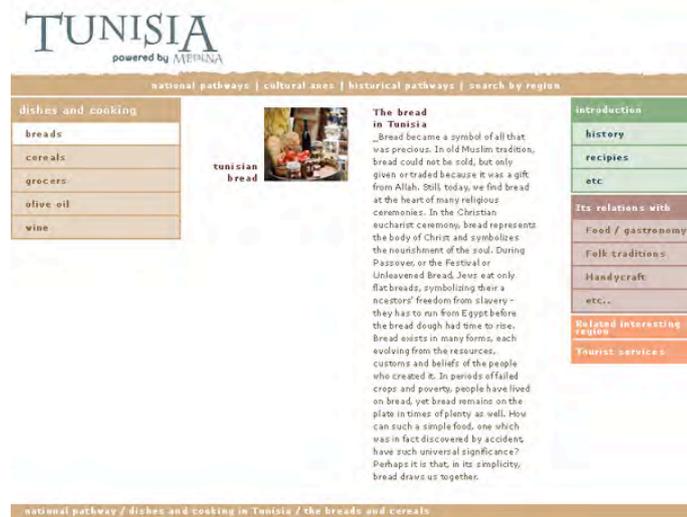


Figure 5 – A national pathway about the bread culture (Tunisia)

Finally, both in the national web sites and in the MEDINA portal, interesting spots are accessible through two more traditional mechanisms: geographical search and historical search. Geographical search allows users to identify the spots of interest that meet some geographical criteria. Historical search allows users to collect interesting spots, of a specific nation or of several nations, using time dependent selection criteria, thus understanding the historical evolution of places and civilization either at national or at Mediterranean level.

To support integration and consistency among all national websites and among them and MEDINA portal, all these systems share a common design schema. According to the W2000 design model (UWA Consortium, 2001c), the schema is defined by a set of classes of information, a set of navigation structures, and a set of conceptual layout templates for the different types of web pages. This design schema can be regarded as an application "skeleton", which captures the essential features common to all national web sites and to the MEDINA portal. If a country has peculiar representation requirements, the design schema can be easily specialized and adapted to the national needs. A national web site can be described as an instantiation of the common design schema (or of its specialization).

This design approach offers the key solution to build a “portals generator”, i.e., a set of tools that support the systematic acquisition and storage of multimedia material and the dynamic data base driven generation of web pages (both for the MEDINA portal and for

the national sites.) The portal generator comprises an on-line data entry tool and a set of generation tools. The on-line data entry tool allows partners to populate the data base storing multimedia contents and links. The generation tools dynamically publish contents and links into the pages as they are accessed by end users.

The (content) editorial approach

Time and budget constraints for the project are severe. The number of the partners (seventeen) is big and they have heterogeneous levels of experience in web technology and multimedia production. Above all, the amount of contents that must be organized is huge, both at national level and at Mediterranean level. A large amount of useful information already exists (being produced locally or elsewhere by independent researchers), but only a small fraction of it is digitized (and in most cases digitized with incompatible formats). Many participating countries have developed “tourism” or “cultural” web, that could provide, in principle, useful content for MEDINA. But web information is oftentimes over simplified: it focuses on conventional very local culture and largely ignores the Mediterranean context, that MEDINA wishes to promote.

Thus existing content (in digital or non digital form) needs to be adapted before being published in the MEDINA system. This means fragmenting, restructuring, and reshaping a piece of content to meet the communication goals of the project, and possibly produce a digital format which is compatible with the technical requirements of the MEDINA portals generator.

In this situation, it is crucial to develop a robust organizational strategy for the editorial activity that promotes efficient content production and adaptation, and supports the coordination of the national efforts. The MEDINA strategy is grounded upon a two layers team structure, composed by a set of local editorial teams (one for each country) and a MEDINA editorial board.

A local editorial team is responsible for:

defining the national editorial plan, i.e., identifying the list of interesting spots that must appear in a national web site;

defining the national pathways and cultural frameworks

selecting and adapting existing content to create the description of each interesting spots, or producing new multimedia content from scratch, when existing content is not available

identifying the interesting spots that are relevant at Mediterranean level. This material is the basis for building Mediterranean pathways and cultural frameworks for the MEDINA portal (activity performed by the MEDINA editorial board, as discussed below);

Each national editorial board must create contents according to the information templates and data formatting constraints defined by the MEDINA design schema (discussed in the previous section). This approach is crucial both to guarantee homogeneous information and navigation structures in all national web sites, and to meet a technical requirement: the provision of well structured and technically coherent material is in fact mandatory for the implementation of the portal generator. National editorial teams must also adhere to a set of editorial guidelines that provide style suggestions, examples, editorial checklists, and informal rules, in order to get a common communication style among the various national contents.

Finally, we should mention that the technological partners of the project (University of Linz and Politecnico di Milano) are performing a number of on-site and on-line training activities to the other partners. The training has the purpose of creating a common methodological and technical background in the MEDINA consortium and a common understanding of the overall project approach. The training activity is also crucial for the sustainability of the project, to ensure that the national portals and the MEDINA portal will continue to survive and to be maintained after the experimental phase. MEDINA training is organized in two main tracks. The technological track focuses on technical issues (including database driven web architectures, digitalization techniques, content management systems, multimedia formats). The editorial track addresses more methodological issues such as the process of web design and multimedia production, web user requirements, web usability, web writing.

The MEDINA editorial board manages the Mediterranean information structures appearing in the MEDINA portal (and supervise the entire editorial work of the project). This transnational committee of experts in the Mediterranean culture responsible for: validating and integrating the proposals suggested by the national editorial boards; defining the Mediterranean cultural frameworks and Mediterranean pathways; adapting the content about the interesting spots suggested by the national editorial teams to appear in the MEDINA portal in order to produce their Mediterranean perspective. The descriptions of national contents are contextualized and reshaped in order to give them a Mediterranean flavour and to highlight their transnational nature producing any complementary content needed by the Mediterranean pathways and cultural frameworks.

The MEDINA editorial workflow is summarized in figure 6.

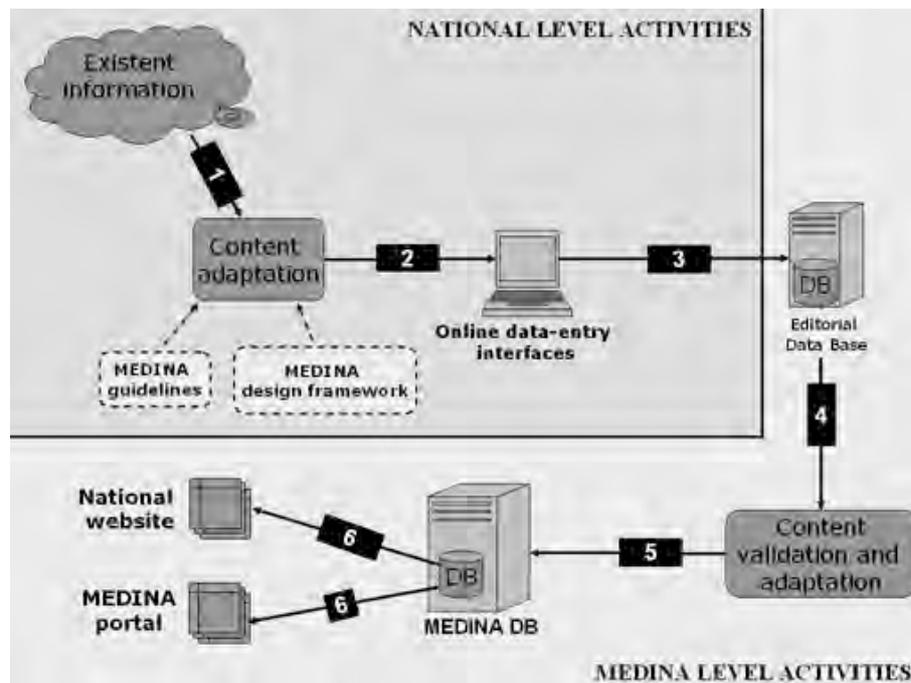


Figure 6 – MEDINA Editorial workflow (from content production to web publication)

Step 1: each partner identifies and produces (possible reusing and adapting existent content) the cultural multimedia material, following the MEDINA design schema and guidelines.

Steps 2 and 3: each partner inserts the material in temporary database using the on-line data-entry tool.

Steps 4 and 5: the content stored in the temporary database are subject to a consistency and quality check. Contents about interesting spots that have a Mediterranean relevance and will be included in some Mediterranean pathways are subject of a second level of adaptation, to give them a Mediterranean flavor. Validated or adapted contents are then stored in the MEDINA database, containing the final material that will appear on the national websites or the MEDINA portal.

Step 6: Generation tools dynamically retrieve the content from the MEDINA database and published it on the pages of the national websites or and the MEDINA.

Conclusions

The Mediterranean area has lost, since longtime, the pivotal role it did play in the past for the development of human civilization. In addition, since Islam took over its southern part, the Mediterranean sea has represented a battle playground and a source of division, rather than a unifying force as it used to be. Still, it is indeed surprising how, over the centuries, a Mediterranean culture is permeating artifacts, traditions, and ways of life of several countries in this basin, creating a wonderful background for mutual understanding and cooperation.

A tourist may be surprised at discovering common deep cultural threads (pathways) across several Mediterranean countries that officially have not been in contact (or they have been at war) for several centuries.

MEDINA is attempting to revive the understanding of this fascinating area: the practical goal is to encourage an innovative way of doing tourism, exploring areas and themes not usual in the standard “all inclusive” tours. The most ambitious goal, however, is to use advanced technology, in order to help creating a new ground for mutual understanding of the Mediterranean countries, and their opening to the curiosity and interest of the rest of the world.

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