

# **Enigma Helvetia: Promoting an Exhibition through Multiple Channels**

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**Abstract.** Cultural Heritage has been traditionally associated to long-term expensive projects. This has inevitably cut off a number of small cultural institutions that, although endowed with interesting content and “stories to tell” about it, still lack the funding for initiatives aimed at communication of that content. In this paper we present a new approach to cultural heritage communication called “Instant Multimedia” that allows, in a short span of time (30 days approximately) and with a limited budget, to create powerful multimedia and multi-channel applications. More than 30 such “professional” applications have been developed so far by our team: we will focus on one of them, “Enigma Helvetia”, describing in details the production workflow and the results of an in-the-field user study assessing its amazing cultural impact.

**Keywords:** instant multimedia, multi-channel, Content Management System, cultural impact, evaluation, user-study.

## **1 Introduction**

In order to introduce the topic of this paper, we invite the reader to use her/his imagination while listening to the following short story. Imagine you are a well-educated Martian consulting, from a far-away galaxy, the internet and the world wide web of our world (to check where to spend your holiday). You are particularly interested in cultural heritage and therefore make some searches using Google (which you also have in your galaxy...), browsing through sites, reading texts, looking at images, enjoying multimedia animations... In the end, what kind of idea would you get of the world’s cultural heritage? What are the places worth visiting? Probably you would quickly erase some countries (“Italy... no, there are just a few small places of interest – apparently these Italians all went abroad to do something worth seeing!”) and did not even acknowledge the existence of others (like many Indian or African or Asian countries), deciding to steadily direct your “flying saucer” towards the North American continent or another Anglo-Saxon country.

What kind of lesson does this small story teach? The cultural heritage field suffers from a kind of digital divide: big and medium sized institutions located in countries

where funding, grants or private support are available can afford expensive and high quality ICT supported communication, while other institutions around the world – the vast majority of them – cannot afford even a “traditional” website: in short, “most museums are left behind.”

We cannot face here all the sociological, economic or political facets of this big issue. In this paper, we present an approach and a concrete example of possible solution to this problem (well aware that this is just a drop in the ocean...): the Instant Multimedia approach and the 1001stories Instant Multimedia package, jointly developed by HOC-Lab of Politecnico di Milano (Italy) and TEC-Lab of the University of Lugano (Switzerland). By “Instant Multimedia” we mean a technique for fast production of good quality digital applications, with small budget and man effort.

## 2 What is Instant Multimedia

Instant Multimedia is a new approach in digital communication: it means that in a short span of time, with little effort (in terms both of man power and budget) good quality digital products can be delivered, to fulfill various communication needs. Instant Multimedia is an evolution over so-called CMS (Content Management Systems), systems in which content is inserted through a data entry interface and publishing is almost automatic. Examples of such systems are Pachyderm [1, 8, 9] and MEDINA [7]. The key aspects of the Instant Multimedia approach are the following:

- *Multimedia*: the application combines different media: visual communication (videos, slideshows, animations...), audio (a voice reading aloud the content) and text. All these elements are kept together by means of a simple and usable interface, where the visual communication dominates the scene.
- *Little span of time for delivery*: Instant Multimedia applications are delivered in “quick time”; the average production time for a medium sized application is about one month, with exceptions on the lower end of the scale (our record time is... one week – of hard work!).
- *Little effort* (in terms of budget and manpower): it is the common experience of those who work in the field of cultural heritage communication that the content production is one of the most expensive and time consuming steps; experts need a lot of time to deliver the first version, their work is then revised many times, discussions burst when designers put forth requirements for adapting the experts’ content to the editorial format of the application etc. Thanks to a peculiar way of gathering the content (see section 3.3), this step is dramatically optimized. Another critical factor for reducing the production time is a well-defined and well-assessed workflow (see section 3.2), where everybody knows what to do and when. Last but not least, a dedicated, easy-to-use engine allows the creation and generation in multiple formats of the application in several of hours.
- *Content is the “king”*: since instant Multimedia makes use both a pre-defined design schema and of an existing, specially tailored tool for generating the

application, all discussions about design and technology are unnecessary. Therefore, from the very beginning of the project, attention can be focused on the message and the communication strategy (the core issue in cultural heritage).

- *Multichannel* (additional feature): due to the most recent technological trends, Instant Multimedia applications nowadays are likely to be also multichannel, i.e., delivered over various devices and in various formats (web, podcast, phone, iPhone... and even the “old fashioned” CD-ROM). The multichannel delivery does not imply any additional effort (see section 3.4)

Instant Multimedia is thus a “package” that in its full is composed by the following elements: a design pattern, a workflow, a content-production system and a dedicated tool. In the next chapter we present the first Instant Multimedia package jointly developed by our laboratories (the HOC-LAB of Politecnico di Milano – Italy – and the TEC-LAB of University of Lugano – Switzerland): the 1001stories Instant Multimedia “package”.

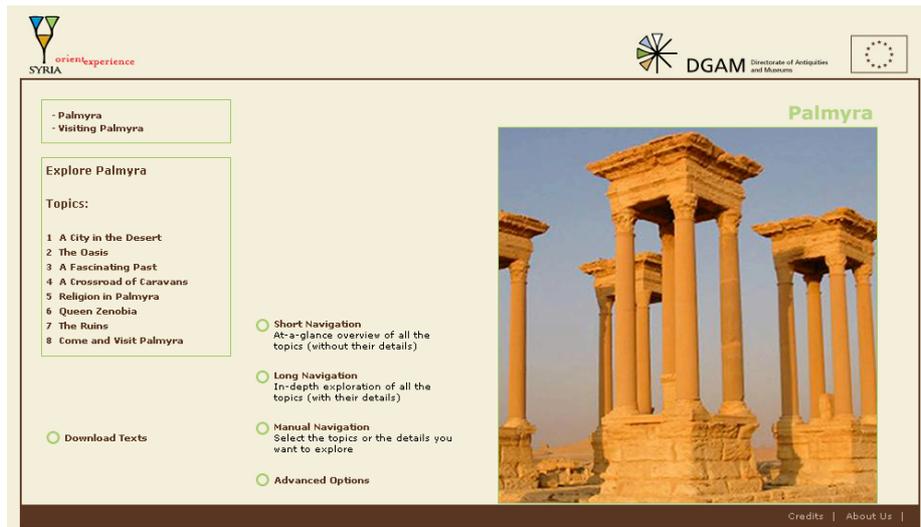
### 3 The 1001stories Instant Multimedia package

The 1001stories package was developed in winter 2005 to answer the “last minute” request of producing – in less than a month! –multimedia support for an exhibition that was to be held at the Pinacoteca Ambrosiana of Milan about tow paintings (both by the Renaissance painter Bramantino), one from the Pinacoteca and the other a loan from the national Gallery of London. Well aware of the fact that we did not have enough time for producing content in the “traditional” way, we decided to develop a “narrative” application with the aim of pleasantly introducing the user to the exhibition, although still in a robust and scientific way. We interviewed the curator (a compelling story-teller!), transcribed the interview and thus developed a set of interesting “stories”, with introductory purpose, about the exhibition. We quickly sketched a simple design pattern, allowing different user scenarios (see next paragraph); eventually, a set of Flash animations illustrating the paintings’ details completed the work (fig. 1 and 2).



**Fig. 1, 2.** The home page of the application “Bramantino” (winter 2005) and one of its Flash animations.

Thus, almost unexpectedly, a “package” was born, with which more than 30 “narrative” applications were to be developed, about various topics (mainly cultural heritage, but not only) and for various clients (ministries of cultural heritage and tourism, companies, universities... fig. 3).

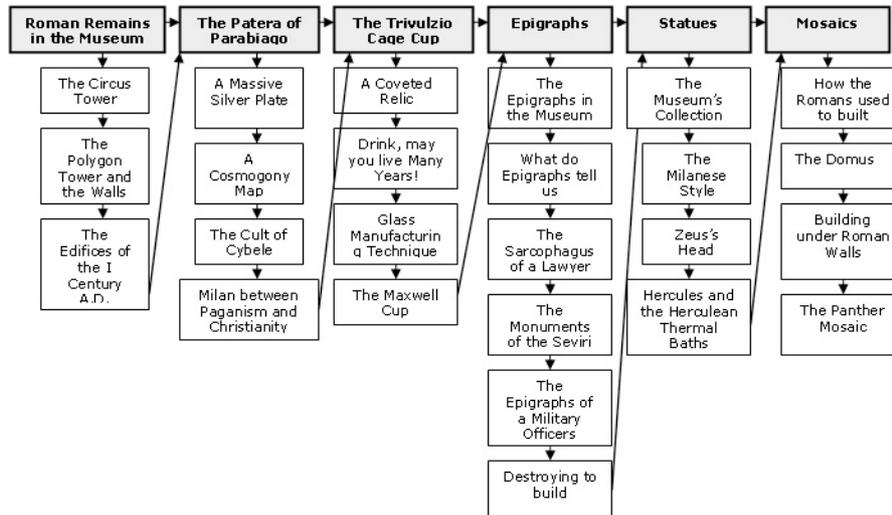


**Fig. 3.** An application on the subject of the ancient city of Palmyra (HOC-LAB, spring 2006, for the Syrian Ministry of Tourism and Cultural heritage – www.discoversyria.org).

Given its utmost simplicity, we decided to hand the 1001stories package to Italian schools, so that they could “tell stories” about local culture using new technologies. In the year 2006, we launched a competition called “PoliCultura” in which more than 4,000 students have taken part so far, from all school grades, with amazing results in terms of quality of the outcomes and of achieved educational benefits [2, 5, 6]. In the following paragraphs we illustrate the design pattern, the workflow, the content production system and, finally, the engine of the 1001stories package.

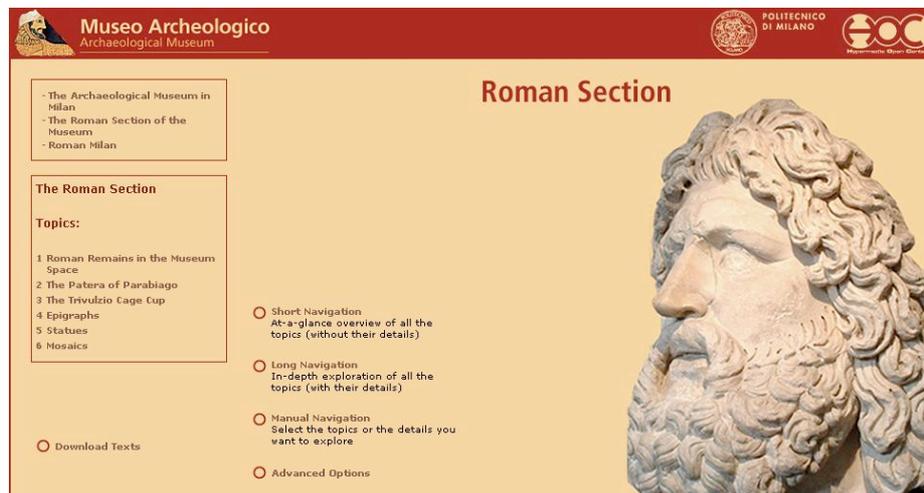
### 3.1 Design Pattern

Figure 4 illustrates the typical 1001stories design pattern. Content is organized into a set of “topics” (usually between 4 and 8), each with a set of sub-topics (again, usually between 4 and 8).

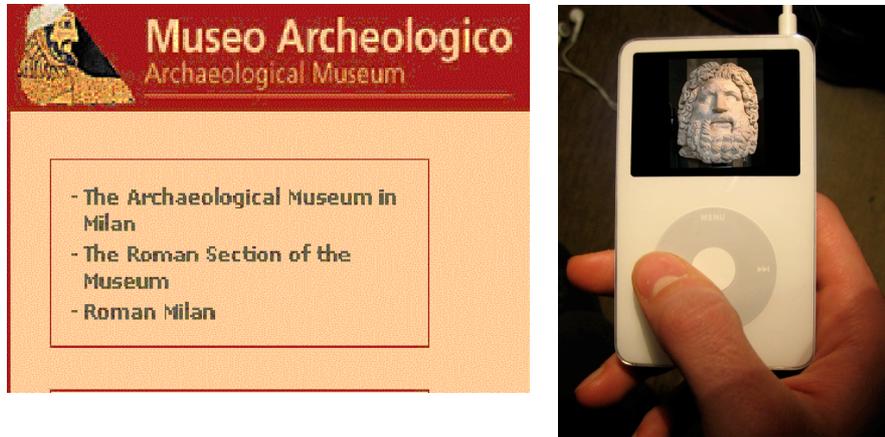


**Fig. 4.** Design structure of the application “Roman Section” for the Archaeological Museum of Milan (HOC-LAB, 2006), exemplifying the general structure of the applications generated by the engine 1001stories. Each of the boxes in the upper line is a main topic, i.e., an executive summary of the details below. The authors can decide how many topics they want (preferably no more than 8) and how many sub-topics or details each of them has.

Additional contents, designated “Framing”, (e.g., information about the institution behind the application, about the authors/curators etc.) are put into dedicated “dead-end” pages accessible from the home page (fig. 5, 6).



**Fig. 5.** The home page of the application “Roman Section” for the Archaeological Museum of Milan (HOC-LAB, 2006); on the left there is the list of topics.



**Fig. 6, 7.** On the left, the “dead end” pages of the application “Roman Section” for the archaeological Museum of Milan: they are meant to “frame” the narrative from a cultural and institutional point of view. On the right, the same application on iPod.

There are various possible interactions for the user:

- *Automatic short navigation:* the user sees only the set of upper level topics, thus getting a complete overview of the content. To this end, topics are conceived as “executive summaries” of their sub-topics.
- *Automatic long navigation:* the user is led through all the application’s content, from topic (with its list of subtopics) to topic, until the end. In this way, the user gets all the content.
- *Manual navigation:* the user can select any topic or subtopic at will.
- *Loop:* the application advances from topic to topic automatically presenting all the content (useful during exhibitions or fairs).

### 3.2 Workflow

The 1001stories workflow is composed by 10 steps:

- (1) *General idea & gathering of the raw material:* first of all, through discussion with the main stakeholders, the high level choices are taken: What are the application’s target and goals?, What is the “message”? etc. [3].
- (2) *Editorial plan:* the set of topics (usually ranging between 4 and 8) and sub-topics (again, ranging from 4 to 8) is devised. The overall theme is dealt with in a non-systematic way, with the aim of raising curiosity and “narrating” stories and anecdotes about the theme.
- (3) *Writing of the narratives:* the whole content of the application is gathered, split into chunks (corresponding to the topics and sub-topics) and written in an appropriate form.

- (4) *Visual communication*: in parallel with the writing of the narratives, the visual communication is prepared: either a slideshow of images – the simplest choice, still very effective – or videos or animations.
- (5) *From text to audio*: once the narratives are ready they are recorded (“in house”, in order to cut down costs, since they are used for the trial version).
- (6) *Putting the pieces together*: first version. The first version of the texts, the audio and the visual elements (slideshows or videos or animations) are inserted in the engine. This is the first step requiring the use of the technological tool.
- (7) *Quality check*. The first version is checked for quality: some images can be deleted or moved, new ones inserted, some texts can be re-written, etc.
- (8) *Revision*: the second version, amending the faults found during the quality check, is prepared.
- (9) *Professional speaker*: the final texts are recorded by a professional speaker, ensuring a higher quality of the result. From now on, texts cannot be changed (again to cut down costs).
- (10) *Final version*: all the pieces are again put together to produce the final, polished version.

### 3.3 Content Production

The content production is normally one of the most cumbersome and time-consuming tasks when preparing any application in which content plays a crucial role and experts are required (cultural heritage applications, typically, but also educational applications). In our experience the best and most effective way (though by no means the only one) of gathering the content is to interview an expert of the subject matter, following the editorial plan and asking her/him to explain each topic or sub-topic in a couple of minutes. In our experience (with about 30 cases), a two-hours interview is sufficient to gather the basic content for a middle-sized applications. This raw material is refined and re-shaped according to the editorial format of the application: texts are usually between 90 to 120 words long, corresponding to a circa one-minute audio clip (a suitable time for the user); internal linguistic links are eliminated (for example, sentences like “as I said before”), since the manual navigation does not guarantee that “what comes before” for the author “comes before” for the user too, etc. The refined text is submitted to the expert for check, integration and final approval. The advantages of interviewing an expert in order to gather the content can be summarized as follows:

- the method is quick and cost-effective (in a couple of hours the basic content is shaped);
- live conversation is more engaging than written texts;
- live conversation gives vent to a text very apt for generating audio clips (texts written aloud);
- when interviewed, the expert is more likely to use terms and style more suitable for the general public.

### 3.4 Technology: the 1001stories engine

The 1001stories engine is a Web service, offered by the HOC-LAB of Politecnico di Milano, that allows the creation and generation of multi-channel applications: web, podcasts, phone, iPhone and CD-ROM). Its data entry interface is very easy to use (fig. 8): the average learning time is 20 minutes (as demonstrated by its use in school environments – see [2, 5, 6]). This simplicity results in important practical consequences:

- competences required in the production team are mainly on the cultural field (cultural heritage, communication, semiotics,...);
- the main effort (and the resources) remains focused on the content production;
- no decisions must be taken on technological issues (software architecture, data base...); no resources are expended on this.



**Fig. 8.** The data entry interface of the 1001stories engine. On the left, the tree-structured editorial plan makes it possible to navigate topics and subtopics. On the right, contents can be added, edited, repositioned, or deleted.

## 4 The exhibition Enigma Helvetia

The exhibition Enigma Helvetia (fig. 9), held in Lugano in the spring of 2008, was a unique opportunity to test 1001stories' suitability to convey and support the understanding of cultural content. Enigma Helvetia was organised jointly by the Cantonal Art Museum and the Museum of Art of Lugano, two prestigious cultural institutions of the City of Lugano.

## enigma helvetia

arti, riti e miti della svizzera moderna.

Museo  
Cantonale d'Arte | Museo  
d'Arte

**The coordinator of Polo culturale:**  
- Bruno Corà

**The curators:**  
- Pietro Bellasi  
- Marco Francioli  
- Carlo Piccardi  
- Cristina Sonderegger

**Enigma Helvetia Tales**

**Topics:**

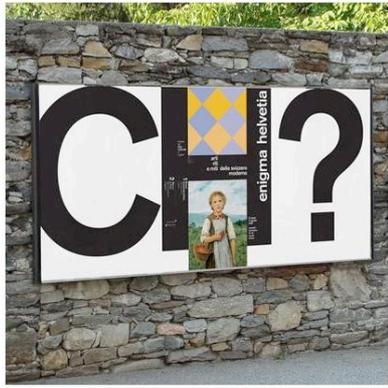
- 1 "Enigma Helvetia": the exhibition
- 2 Daily life
- 3 History and Identity of Switzerland
- 4 Mountains
- 5 Trains
- 6 Miniature making
- 7 Exhibition design
- 8 Invitation to the exhibition

Short navigation  
At-a-glance overview of all the topics  
(without their details)

Long navigation  
In-depth exploration of all the topics (with  
their details)

Manual navigation  
Select the topics or the details you want to  
explore

Advanced options



**Fig. 9.** The home page of the exhibition “Enigma Helvetia” (TEC-LAB, spring 2008).

The exhibition seeks to solve the inherent contradictions between the Swiss stereotypes about the everyday life and Swiss artistic creations, often surprisingly anguished. The multidisciplinary team of curators (from art historians to anthropologists) put together a show that is original in conception and even startling in its ability to match up expressions of high art with objects from everyday life (fig. 10 and 11).



**Figg. 10, 11.** Images of the application “Enigma Helvetia”, exemplifying the clash between Swiss stereotypes (the clock meaning “precision”) and anguish as expressed in works of art (Mario Comensoli – the “gentle death” of a young man dying of an overdose).

The peculiarity of the exhibition consists in the fact that it is not only an art show (with paintings, sculptures, installations etc.) but it also provides an analysis of the history, identity and above all the everyday life of the Swiss. To this end, it puts on show objects and installations that denote some of the salient (perhaps stereotyped)

features of Swiss culture such as accuracy, cleanliness, conscientiousness and so forth. Yet, these soothing features (components of the Swiss myth and its legend) clash quite strongly with some dark expressions of Swiss artistic production. The conflict between uplifting stereotypes and Swiss art underpins the whole exhibition. Another interesting aspect concerns the team of curators of Enigma Helvetia that is proof of the interdisciplinary nature, or indeed trans-disciplinarity of the exhibition, which mingles art objects with ordinary, everyday objects and fixtures that are suggestive of Swiss identity. Marco Francioli, director of the Cantonal Museum, and Cristina Sonderegger, researcher of Museum of Art of Lugano, are art historians. Carlo Piccardi, in charge of the musical component of the exhibition, is a musicologist; Pietro Bellasi is an art anthropologist. Among the curators, Pietro Bellasi was the person with whom we worked to define the editorial plan and the main contents for the storytelling.

#### **4.1 Research issues and results**

This case study was perfect to refine our research interests around two main issues: the suitability of the authoring workflow for professional contexts and the suitability of the format to favor the understanding of cultural contents.

Data gathered during the development of the application indicates that the pre-defined workflow favors the concentration on content creation, as it sets aside any issue related to the technical aspect of the application development. The most consistent time and effort in using 1001stories is actually required by content production (writing texts and images' selection), given the typical care, in cultural heritage filed, dedicated to the quality of contents. Overall, for the project Enigma Helvetia Tales the number of hours spent with writing the narratives is 20 hours (including the reviews), while the time employed for making the editorial plan is 9 hours and the data-entry is done in 6 hours.

The Enigma Helvetia Tales was published in 30 days. After the public presentation, we launched the survey phase through online and onsite questionnaires (at the two locations where the exhibition was held – the Museo d'Arte Moderna and the Museo Cantonale). The survey, which is currently in its final phase, has the objective to evaluate the impact of the interactive application created with 1001stories; it aims in particular at answering the following questions: does the application act as a spur for visiting the exhibition? Is the application effective to prepare for the visit? After the visit, is it useful to gain a better insight? Invitations to fill in the online questionnaire were disseminated over several channels: sending emails through museums newsletter (to more than 3,000 contacts), hanging posters with the web address at the museums and at the tourist offices in Lugano, advertising the survey through traditional museum channels. Preliminary results (116 questionnaires online and 85 onsite) show high appreciation of the application: 84,35% of the visitors declare to have spent more than 5 minutes with it (of which 26,09% more than 20 minutes, 58,26% between 5 and 20 minutes), the 26,67% of people that visited the exhibition (18,26% of the overall group of users) says that the application helps to better understand the exhibition contents, while the 38,46% of users who haven't been there yet declare that the application actually stimulates their

interest in visiting the exhibition. Since these people can be classified as “knowledgeable” of the subject matter (62% visit more than 6 exhibitions per year), their appreciation is even more rewarding. These data are validated by the Web statistics (Google Analytics) that confirm that the 46,5% of visitors interact with the application between 1 and 15 minutes. Although the data are not yet complete at the moment, these results confirm the validity of the approach and provide important insights for defining next actions for refining our work.

## 5 Conclusions and future work

In our assessment, the Instant Multimedia approach, as demonstrated by the successful story of the 1001stories package, satisfies a number of cultural as well as practical requirements. From a cultural point of view, Instant Multimedia helps to:

- Quickly react to needs (ex. an exhibition)
- Focus on niche-target and niche-content
- Update the content several times (with little effort)
- Throw obsolete content away

From a practical point of view, Instant Multimedia helps to:

- Make better use of limited budget
- Achieve better scalability:
  - o Lower budget, fewer productions
  - o Higher budget, more productions

On the research side, our plans for the future include more in-depth research on the cultural impact of this kind of application and the creation of new Instant Multimedia packages. From a social point of view, we are about to launch the “YouCult” initiative: a repository of “narratives” created by local experts using the 1001stories package (engine included). We are well aware that all around Italy (and also all around Europe, as well as all around the world) there are lots of local experts who have wonderful stories to tell about their local culture. We mean to provide them with an easy-to-use tool to tell them and then share them online, in a web 2.0 repository (à la YouTube).

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