

## History Paths – Short Abstract

Small or medium-scale focused research project (STREP)

### ICT Call 9

FP7-ICT-2012-9



### HistoryPaths

A shared virtual learning environment to experience the European idea "United in Diversity" by collaboratively creating multiple views on European History

#### Small or medium scale focused research project (STREP)

**Date of preparation:** 17<sup>th</sup> of April 2012

#### Work programme topic addressed

#### Objective ICT-2011.8.2 ICT for access to cultural resources

(a) Technologies for creating personalised and engaging digital cultural experiences

**Name of the coordinating person:** Roland Blach

**e-mail:** Roland.Blach@iao.fraunhofer.de

**phone:** +49 711 970 2153

**fax:** +49 711 970 2213

Participant no. *	Participant organisation name	Part. short name	Country
1	Fraunhofer Gesellschaft - Institute for Industrial Engineering	FhG	Germany
2	Politecnico di Torino	POLITO	Italy
3	Istituto per la Storia della Resistenza "G. Agosti" Torino	ISTORETO	Italy
4	Link Campus University (Roma)	LINK	Italy
5	Studio ennezerotre	NO3	Italy
6	Lab. Sciences de l'Information et des Systemes de CNRS – LSIS, Marseille	CNRS/LSIS	France
7	Conseil Général 04 for Salagon Museum and County archives	CG04	France
8	Atelier Brückner	ATB	Germany
9	Haus der Geschichte	HDG	Germany
10	GRAZ University of Technology	TU-Graz	Austria
11	Personal Space Technologies	PS-Tech	Netherlands
12	Pan-European Apeiron University	APEIRON	Bosn&Herz.
13	Fondazione Giorgio Cini onlus– Venezia	CINI	Italy

As. Partner	Bosch Foundation	BOSCH	Germany
-------------	------------------	-------	---------

## Proposal abstract

Political Europe, always a challenged structure, recently affected by e.g. the economic crises, the rise of nationalistic political forces or the fast growth due to new member states could benefit from stabilization by the individuals which form the European society and support the European idea. Specifically young Europeans need to comprehend the past to be able to understand our present and master the future. To strengthen the European identification of young people, **HistoryPaths** proposes to develop and implement a technology enhanced learning environment for a better understanding of European history. To do so, European viewpoints on historical events which were essential parts of the creation of political Europe e.g. End of War, Migration, the Fall of the Wall, etc., will be combined via a network of multi-national historical institutions.

The project aims at telling multi perspective stories of these events from the point of view of different stakeholder focusing on regional differences. These different viewpoints constitute coexisting European historical truths which need to be understood to assess the actual political situation. To connect historical events to today's social reality of young people, a methodological approach will be the backward moving in time from problems or situations they face today showing the links to the events in the past (e.g. "Why do immigrants take the jobs of my parents?" to the fact that Germany has e.g. invited Turkish immigrants to come to Germany in the 1960's due to shortage of workers). So, a present situation or problematic event, proposed by the **HistoryPaths** system, can be the starting point for a learning path through historic documents, archives, and other cultural resources as videos, photos, recorded stories by witnesses, etc.

The main target groups are young Europeans as individuals but also as members of educational institutions like schools, guided by teachers or supervisors. This affords blending of personal learning with social and formal learning approaches, which is still challenging from a technology but also from an organizational point of view. Recent learning theory also suggests that events and processes can be conveyed more effectively via experience based media technology which draws from recent digital storytelling and interactive game technology. With these meaningful events transformed to story lines which can be experienced in an immersive media environment, we believe that we could attract and stimulate the target group and convey more sustainable knowledge.

The main innovation points are:

- Multi perspective modeling and management of content of historical events with focus on paths and stories for teaching in history
- Integrating recent learning approaches as social and micro learning methods
- Authoring tools for historical events for non ICT experts
- Combined personal and group experience based media environment based on distributed interfaces and mixed reality technology

To be able to create and share the content, a collaborative authoring platform and a knowledge repository has to be provided which can be used by the historians and pedagogical supervisors to create the scenarios. This includes specifically new models of story descriptions adapted to the historical application cases.

The effectiveness of the approach and the tools will be evaluated by the pedagogical stuff, the learning theory and usability experts via the application cases implemented at the museum sites. **HistoryPaths** promises to have a direct impact at the participating historical institutions, but the approach could also serve as a blueprint for other related scientific areas.

**Keywords:** *Collaborative Learning, Mixed Reality, Natural and Tangible Interfaces, Personalization*

## Collaborative Collection and Authoring Platform

**HistoryPaths** will provide a collaborative authoring platform and a knowledge repository based on Content Management Systems (CMS) and Learning Management Systems (LMS), which can be used by the historians and pedagogical supervisors to create and share the scenarios. This includes specifically new models of story descriptions adapted to the historical application cases.

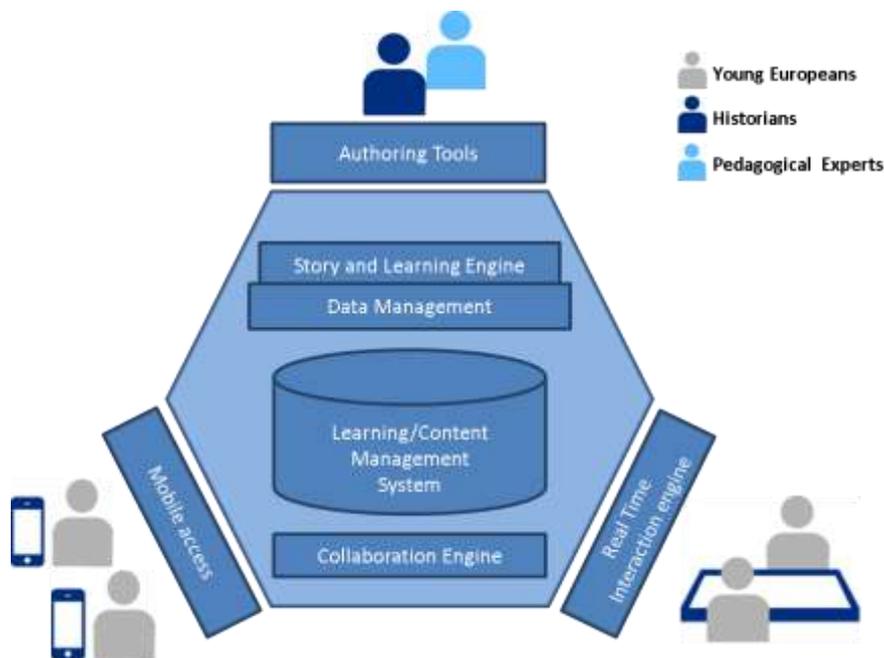


Figure 1: HistoryPaths Middleware components

The collaboration platform will exploit web standards (HTML5, XMPP, JSON,...) as much as possible as this allows for seamless usage of various end devices.

## Historical Approach

The analysis of the events structure as well as of the connections among events is considered of great importance in any historical and philosophical investigation. An event, indeed, could be simply defined: “broadly understood, events are things that happen—things such as births and deaths, thunder and lightning, explosions, weddings, hiccups and hand-waves, dances, smiles, walks”, as in the Stanford Encyclopedia of Philosophy. In historical terms, an event is usually considered as an ordered sequence of actions done by actors (e.g. persons), by using objects (e.g. tools, arms) in a specific space and a specific time.

Historians have always been interested to give proper descriptions of the event’s structure (i.e., *the actions, the actors, the used objects, the space and time of event’s occurrence*), and possibly to draw connections between two events, such to be able to better establish the significance of the event’s happening and to estimate their impact.

To answer these questions, the historical researchers will develop a common approach to the event modeling, where the different local viewpoints, giving rise to story scripts, will be progressively integrated into a common event presentation. This one will harmonize the different viewpoints such to allow the event observation and analysis according to complementary views.

Just as an example, we can consider a dramatic event of very large impact in Europe: the constrained exodus of populations. On one side (the historical research viewpoint), this type of event appears of significant importance in Europe because forced displacements, often of very large dimension, occurred in several European Countries in the years immediately after the WWI. On the other side (the history teaching and learning), this same theme gives to young students several suggestions on the tragedies caused by totalitarian regimes and on the hard living conditions of Displaced People (difficulty to be accepted in a new Country, discrimination, etc.). Previous studies of Istoretto on this theme gave rise to an online data-base (<http://intranet.istoreto.it/esodo/>).

## Pedagogical Approach

The pedagogical approach aims at providing an *engaging cultural experience* that supports the *understanding of historical processes*. This approach is based on two pillars, (1) individually created or enriched stories and (2) an underling historical structure. Users (students) will become engaged by telling stories of real or fictive persons and align their stories to the structure of historical events and facts as created by history experts and stored in the **HistoryPaths** repository. Depending on the users' or students' expertise, motivation, and goals, **HistoryPaths** will provide different methods how individual stories are being created or enriched. In this way, **HistoryPaths** personalises the cultural experience to individual users.

Using such structural background, different ways of creating stories will be provided:

- 1. An official story crosses the life of ordinary people:** A teacher or historian creates a story path to express a historical process that should be understood by learners and shares it with the students. Then the students (alone or in groups) take up the history path and add their own pieces of individual stories to each building block. Individual stories are created by either asking existing people (e.g. grandparents) or by creating fictitious stories. If existing people are questioned then the students can use their smart phones to make audio or video recordings of their talks, photos of documents, scans of old photographs and add them to the story path. In addition to multimedia material they add texts or self-recordings where they explain the story of the individual their understanding how this story is related to the historical context (event and fact). All the stories can be tracked on a social network.
- 2. Autonomous and challenging way:** Students create their own story paths. However the authoring tool provides help by giving recommendations and feedbacks on the created structures. As described above the created story paths can be assigned to individual stories by adding multimedia documents and texts/self-recordings to each building block. In order to support this process a teacher or historian can already preselect the building blocks and the students have to assemble them into a meaningful path.
- 3. Playing way:** A group of students (or a student on his own) “plays” a history path in a group rather than pre-creating a path, starting with a historical event and creating a fictitious individual story fitting to this event or a historical technological know-how of ordinary people. Then they search for an event that happened after the previous one, add it to the story path and continue with their fictitious story by assigning it to the new building blocks. This process can be continued until a meaningful story path is created that expresses a historical process. The group can also start from an object or an iconographic trace, which is present in one of the museums, and create a fictitious group or individual story on this basis. In a social network, a brain storming space is created in order to increase the creativity.
- 4. Investigation way:** Students become the investigators of a thriller or a crime fiction as they use their imagination for creating a completely new story from traces or indices or evidences (historical archives, places or objects present in the museums). They can also follow an historical character or an ordinary person who is mentioned several times in various archives and invent what is unknown and create extra-ordinary events. They can use traces, indices or evidences from all the partners' museums inviting students to go in the different museums. They can write the fiction themselves in collaboration with various students of each country and followed by teachers.

## Target Groups

**HistoryPaths** will work with and towards two target groups:

- The main end user target groups are **young Europeans** as individuals but also as members of educational institutions as schools guided by teachers or supervisors. This affords a blending of personal learning with social and formal learning approaches which is still challenging from a technology but also from an organizational point of view. Recent learning theory also suggests that events and processes can be conveyed more effectively via experience based media technology which draws from recent digital storytelling and interactive game technology. If the events will be transformed to stories which can be experienced we hope to attract and stimulate the target group and convey in the long term the knowledge more sustainably.
- A second target group for the middleware and authoring components are **historians, museum pedagogical staff**, etc. who create and update the content databases and the stories. The tools have to provide a usability level which makes it possible.

## Application Case Implementation

**HistoryPaths** will implement different application cases at the museum sites and evaluate the effectiveness of the approach and the tools with the pedagogical staff, but also with the learning theory and usability experts of the associated research partners.

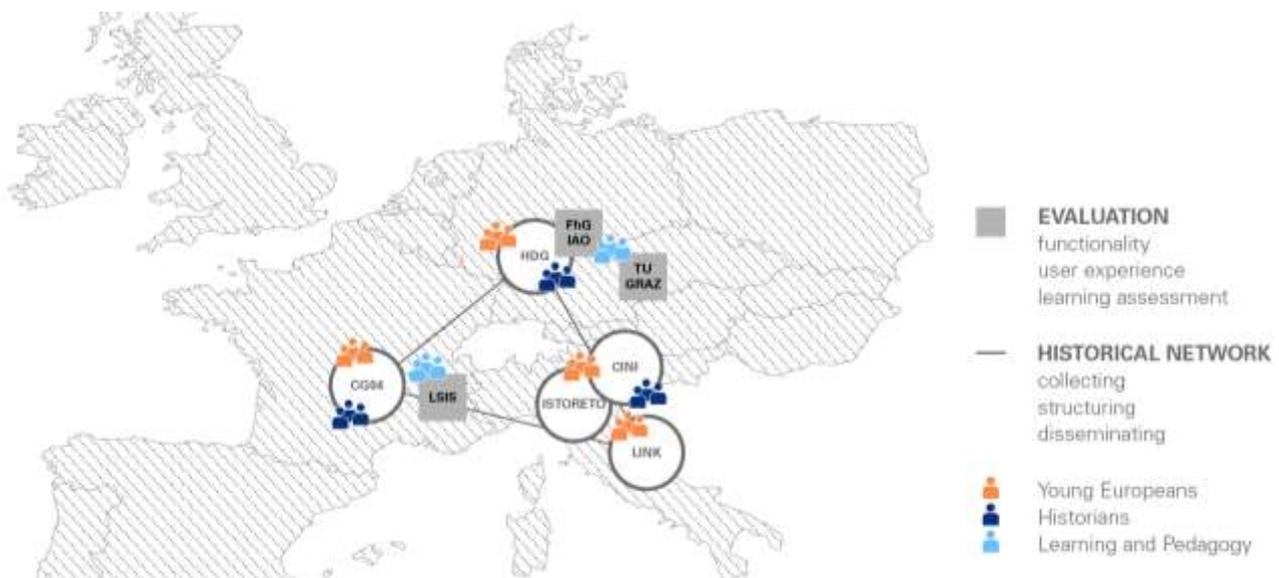


Figure 2: The historical network - North-Italy (Torino), Haute-Provence, Schwaben

One or two significant events will be selected in the initial phase of the project. These events will be structured and analyzed from the different perspectives of three participating countries Germany, France, and Italy. A model structure will be built by the historians and the ingredients will be digitized by the technical partners.