

CONTRIBUTIONS TO SEMANTICS-BASED RECOMMENDATIONS AND VISUALIZATION TECHNOLOGIES TO DEVELOP AND CURATE CULTURAL HERITAGE EXPERIENCES

Abdullah Rady Daif, Martín López-Nores

OBJECTIVES

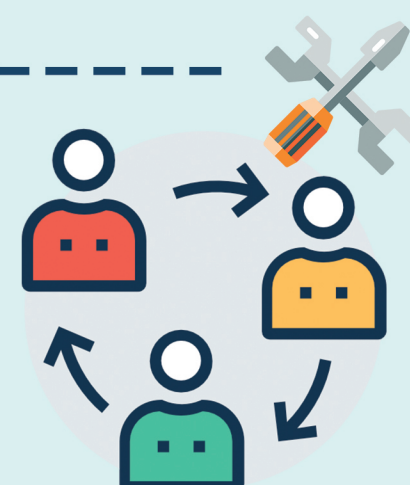
Build a recommender system

to filter collections of semantic paths linking concepts of interest as per their relevance with regard to selected reflective topics



Develop a web-based expert tool

to create, edit, save, and load experiences involving sets of reflective topics, connections, questions, and multimedia contents



Develop a mobile game

for museum visitors to reflect on the associations and provide new links of their own



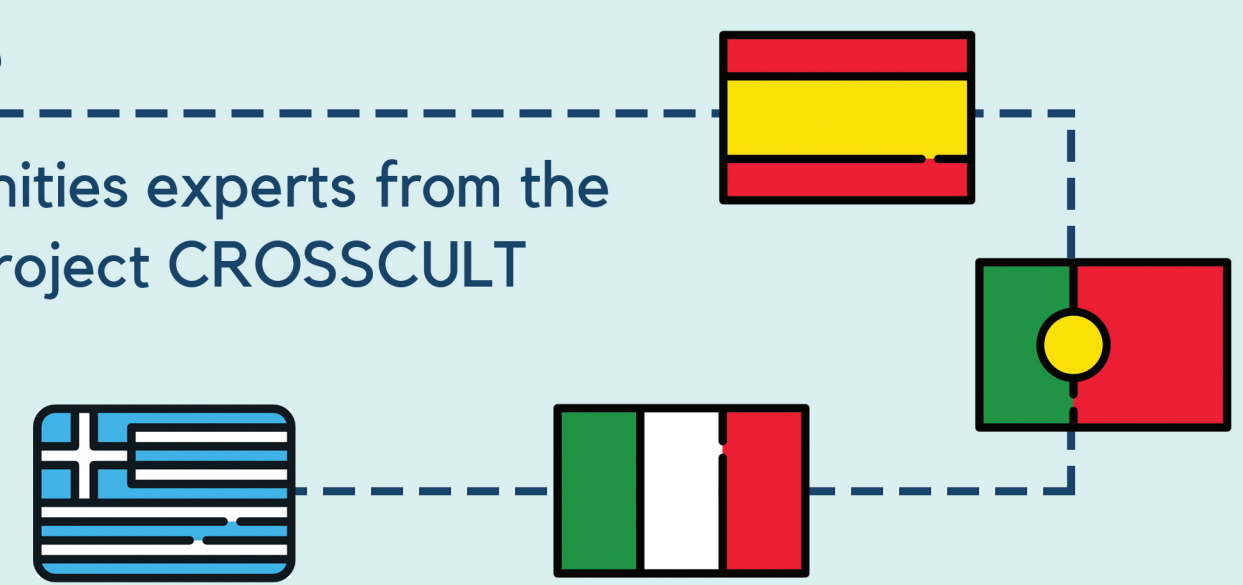
MOTIVATION

Semantic web technologies and Linked Data can spur a change in the way citizens appraise history, by automating the discovery and visualization of associations among historical events, locations, cultural heritage items and viewpoints.

Humanities experts must be involved through proper tools to validate the associations and create effective narratives

Evaluate

by humanities experts from the H2020 project CROSSCULT



Visualize artifacts

Mesh of Associations

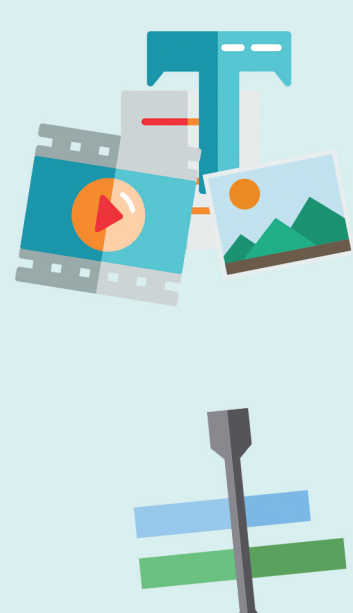
Informational Snippets

Multiple Choice Questions (MCQs)

Timelines

Maps

Third-party game elements



RESEARCH PLAN

Analyze existing resources in semantic web & linked data related to cultural heritage

Implement the mobile game supporting the sample experiences

Prepare a new release of the expert tool & mobile game

Prepare new experiments with unforeseen collaboration tests with real visitors

Implement a functional tool for experts to develop sample experiences manually

Evaluate the mobile game with the sample experiences and prepare summary of reflection results

Design and implement the recommenders of semantic paths

Prepare the thesis documentation

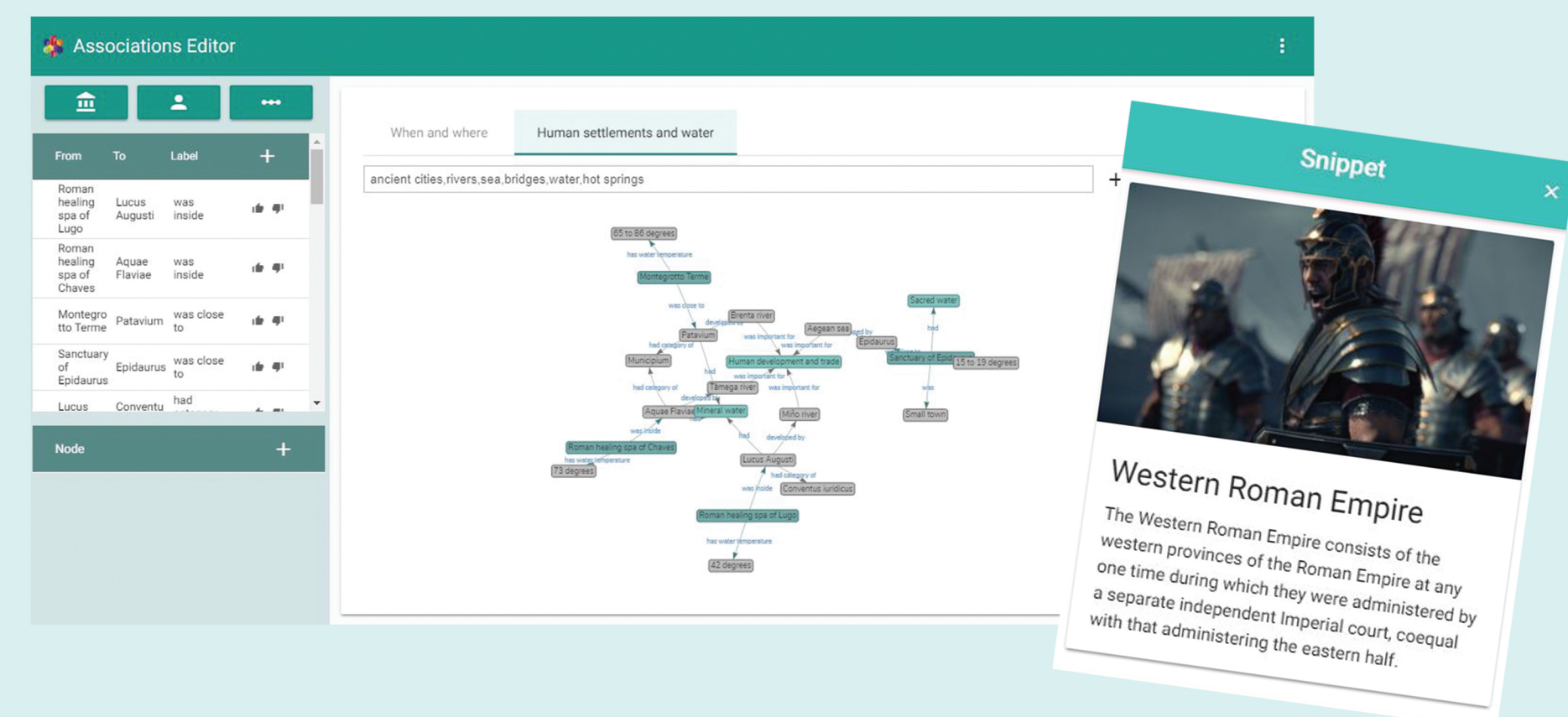
NEXT YEAR PLANNING

RESULTS

Publications

- Developing Quiz Games Linked to Networks of Semantic Connections among Cultural Venues
- A mobile app to learn about cultural and historical associations in a closed loop with humanities experts
- Advanced Visual Interfaces to Represent Cultural and Historical Facts and Associations in the CrossCult EU project

Implementation



REFERENCES

- Daif, Abdullah, et al. "Developing Quiz Games Linked to Networks of Semantic Connections Among Cultural Venues", Research Conference on Metadata and Semantics Research. Springer, Cham, 2017.
- Daif, Abdullah, et al. "A mobile app to learn about cultural and historical associations in a closed loop with humanities experts", Mobile Information Systems, Hindawi, 2017.
- Daif, Abdullah, et al. "Advanced Visual Interfaces to Represent Cultural and Historical Facts and Associations in the CrossCult EU project", AVI-CH 2018, 2018.
- C. Vassilakis, L. Deladiennee, M. López-Nores, and R. GiménezMolina. 2017. Programmer's guide for data management and service invocation - First version. CROSSCULT Deliverable 4.3, <http://www.crosscult.eu/en/resources/deliverables/>, 2017.