#### Sisto Maria<sup>1</sup>, Gagnebin Brown Mélanie<sup>2</sup>, Julia Nemeth<sup>1</sup>, Nicolas Sommer<sup>1</sup>, Gobron Stéphane<sup>1</sup>

- 1: Image Processing and Computer Graphics group, HE-Arc, HES-SO, Switzerland
- 2: Institut du Management des Villes et du Territoire (IMVT), HE-Arc, HES-SO, Switzerland

Contact: maria.sisto@he-arc.ch

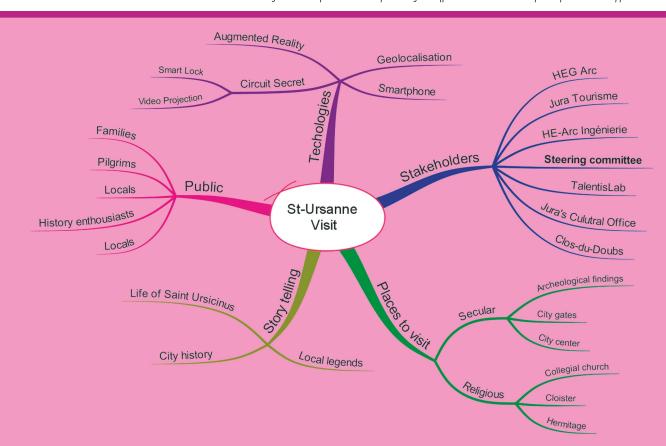
#### **ABSTRACT**

The city of St-Ursanne, located in the Swiss Jura, is a city with a rich historical and religious heritage. According to the legend, the town was founded in the VIth century by Saint Urscinius, an Irish monk. For the 1400<sup>th</sup> anniversary of the death of its death, the ecclesiastic township has created a steering committee to organize events and bring a new dynamic to the city. One part of the actions taken by the committee is to modernize the visit of the town through a location-based mobile app. The innovation of the project is to combine an access management system (Circuit Secret) with video-projection and Augmented Reality to provide a rich and original experience to the visitor of the city.

#### KEYWORDS

History; Archeology; Tourism; Serious game; Augmented reality; Access management; Historical heritage.

Figure 1: Conceptual illustration presenting the different stakeholders and aspects of the new visit app.



35

## CONTEXT

St-Ursanne is a picturesque city located in the Swiss Jura. The legend says that in the VIth century Saint Ursicinus, an Irish missionary, hermit, and disciple of Saint Columbanus decided to settle there after a bear ate his donkey. He then founded a monastery, around which the city of St-Ursanne grew. The legend is still living in St-Ursanne, the cave in which the saint first settled can be visited in the heights of the town, and the sarcophagus containing its remains is still kept the collegiate church of St-Ursanne. The religious complex includes the collegiate church dating to the XIIth century and its adjoining cloister, the Lapidary Museum, containing the Merovingian sarcophagi and a crypt, where the remains of the Saint used to lay. More than the religious complex, the city center itself is well preserved, with houses dating back to the XVIth century. The city center is accessible from three gates, dating between the XIIth and the XVIth century. The bridge leading to the south gate crosses the Doubs, adding to the striking look of the city.

## TARGETED ISSUES

Despite the beautiful city center and the religious and historical interest of the city, tourism is declining, with fewer visitors each year [1]. The financial situation of the shop and hostel owners is difficult. The decrease of interest for the place also present the risk of historical, religious and spiritual heritage being lost. The 1400<sup>th</sup> anniversary of the death of Saint Ursicinus coming in 2020 is the perfect occasion to bring a new dynamic in the town using the historical and religious heritage of the region. To this purpose, the ecclesiastical township created a steering committee to build this project. The group has a project manager and two scientific commissions. Numerous entities are also taking part in the project: the Haute École Arc, Jura Tourisme, TalentisLAB, canton Jura's Cultural Office, HEG Arc and the Municipality of Clos-du-Doubs. A preliminary study has been conducted in 2016-2017 and has lead to the development of the current project [2].

## PROPOSED SOLUTION

The goal of this project is to increase the visitation of St-Ursanne and provide a better understanding of its historical and religious heritage. The target is not only people interested in those subjects but also families looking for a trip destination and people living in the region, allowing them to discover the city in a new light. The project is split into two parts: the event part for the year 2020 and the sustainable activities meant to stay after 2020. One of the sustainable action to be taken is to modernize the town tour. At present, the visit is done is a very classical way, with a map containing points of interests and a few information on them. This map

is available at the tourism office or on a smartphone app and allows no interaction. To make the visit more attractive, the idea is to create a location based "treasure hunt" app, leading the user through the city different key points. The tour will be lead through a narration of the history of the Saint and the city, allowing the user to discover more at each step. The narrative will be

This project is a starting point for the future tourism evolution in St-Ursanne managed by Jura Tourisme.



adapted to the user, with a child and an adult version, and with an option to turn it off and use the app as a classical town tour app. Combining the historical and archeological assets of the city with its religious and spiritual value, the aim is to lead the user through an adventure, making him the hero of its own story of spirituality and self-discovery.

#### RELEVANT INNOVATION

One of the most outstanding technical innovation of this project is the creation of a location-based app with the "Circuit Secret" concept. "Circuit Secret" is a new way of visiting towns [3]. Through access management with smart locks and video projection, the visitor is lead to visit unusual and inaccessible places, each telling its own story. Restricted access allows the creation of artistic installations requiring the specific equipment,



Figure 2: Concept illustration presenting the location-based solution of points of interest.

such as video-projectors and motion sensors. Furthermore, Augmented Reality (AR) will be used to allow people to discover the city in a new light, pointing out archeological discoveries and artistic details. For example, AR will be used on the richly decorated south door of the collegial church in order to give relevant information about the characters appearing in it. Finally, the collaboration between people from diverse background such as the religious community, archeologists, historians, artists, and engineers is a rare and precious experience in the creation of a successful project. This transversal cooperation is meant to be the first step towards a sustainable partnership in favor of the culture of the town. Fig. 1 illustrates the different concepts and stakeholders of the project.

#### PROJECT OUTCOMES & RESULTS

The concrete result of this project is an app, available on a smartphone, allowing a guided visit of the city and its history (see Fig. 2). The app will be available in three versions: adult, children and informative. The informative version will not contain any narration, and only state the historical facts linked to the different places. The app will also propose a modified version of the trail for persons with reduced mobility and an automatic audio transcript of all the written content for persons with hearing problems. Although the beginning of the adventure will be free, to be able to maintain the physical installations in place, the access to the "Circuit Secret" part of the app as well as some of the AR content will be charged. However, the essential expected result is a renewed interest of the people to visit St-Ursanne, especially of people staying at least one night in the town. With this increased notoriety, hopefully, a bettering of the residential economy and the monetary influx will happen [4, 5]. Lastly, the aim is for the visitor leaving St-Ursanne to have lived an experience where they weren't just a spectator, but in which they could be an actor.

## CONCLUSION

This project is a starting point for the future evolution of tourism in St-Ursanne managed by Jura Tourisme. The app will be updated along the archeological and historical discoveries in the city and the new visit opportunities that may occur. The workgroup gathered for this project, uniting people from a different background is the base to keep the St-Ursanne project spirit alive, even after the end of the current project.



A LILLING & HILLIAND

# PERSPECTIVES & NEEDS

In the current state of the project, funding is still needed, as well as educated people on the historical, archeological and religious heritage of the region. However, the project success lays mainly on the people speaking about the project and coming to visit St-Ursanne next year, people to get involved in the history of St-Ursanne and their own history. The nature of the app and the work group formed around this project forecast for a durable project in favor the the culture of the region.

## REFERENCES AND BIBLIOGRAPHY

- [1] Jura Tourisme: Rapport d'exercice 2017.
- [2] "St-Ursanne Project", M. Babey, N. Wenk, C. Bolinhas, S. Gobron, 6SGS'17 Gamification & Serious Games Symposium 2017, pp 81–82, 2017
- [3] Circuit Secret, TalentisLab: http://www.talentislab.ch/fr/Projets-en-cours/Circuit-Secret.html
- [4] Le tourisme: moteur de la revitalisation des espaces ruraux français, M. Talandier. Cahier espace, pp.132-136, 2008
- [5] L'économie locale « résidentielle », L. Davezies, Géographie, économie, société 11(1), pp. 47–53, 2009