

28|STORIABOX: FROM GAMIFICATION TO SERIOUS GAME, IS IT THE RIGHT WAY?

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Since 2014, the strong Swiss franc has negatively impacted on the Swiss tourism sector. Daniel Lampart, first secretary of the Swiss Federation of Trade Unions confirmed it in an interview: “We are certainly witnessing an improvement in 2016, but the pressure remains strong on the Swiss economy key sectors like industry, finance or tourism [...]”¹. In this context, we conducted the project “Mobile Tour Information System” (MTIS). Its idea was to propose scenarised visits produced with new technologies. We thus created a mobile app that enables the user to discover a site through a story where each chapter corresponds to a sightseeing attraction (GPS or bluetooth detection). Different contexts such as texts, sound, videos, 3D objects, animations, quizzes and AR techniques (digital content overlay to the actual scenery) are supported by the mobile app. We conceived CreaStoria, a methodology that structures the story creation stages, from storyboard to its digitisation. So the app uses storytelling, and in particular digital storytelling, considered one of the application gamification mechanics (Muletier et al. 2014). This paper highlight the evolution of the app related with its gamification mechanics.

Storiabox contains nine visits. The tour contents were adapted according to the target audience and operating conditions. For instance, on the Roselet of Les Breuleux, Samara, the little horse (digital character) shows you around the old horses’ residence, a walk complemented by many games and quizzes. In another visit, two spa clients, Jules and Julie (actors) guide you through the center of Yverdon-Les-Bains to show the hidden treasures from Roman times as well as its ancient Castrum the reappears on site in augmented reality. After three years of operating the app, we noted that the itineraries which have lots of gamification elements are more successful. We thus asked ourselves if we should transform Storiabox into a serious game to improve its attractiveness.

In order to answer this question we led an exploratory study during the summer 2016 and expressed the following hypothesis: “Increasing gamification mechanics integration enables to raise user commitment and pleasure.” To test it we selected the Storiabox watchmaking town planning of La Chaux-de-Fonds. The study had two phases. In the first phase, we quantitatively and qualitatively measured the user experiment through this route with a poor gamification content. In the second phase we established a gameplay and added gamification mechanics such as games, a classification system according to game-obtained results, a result-sharing leaderboard and a trophy-obtaining system awarding some challenges realised during the tour. In this phase we also quantitatively and qualitatively measured the experiment. We proceeded to 16 half-directive interviews on a batch of 3 men and 5 women in the first phase and in the second on 6 men and 2 women. Although the exploratory study results did not confirm our hypothesis, as the app perceived quality, the intention to reuse and the user satisfaction is statistically identical before and after the gamification mechanics addition, they are interesting because they are contradictory, unexpected and they open new research perspectives (Nassisi et al. 2017).

The size of the sample of this preliminary study does not enable us to draw a conclusion. Nevertheless it shows that adding some gamification mechanic does not increase the user commitment and pleasure. We could maybe explain it by the fact that they do not correspond to the user expectations in this context. In order to check this, we are going to base our future reflections on Bartle’s taxonomy (1999), which defines four types of players: socializers, achievers, killers and explorers. According to Muletier (2014),

we can bind the last ones to their corresponding gamification models. Binding *a priori* a user profile to a player type should be useful in guiding future research.

In conclusion, it would then be possible to propose gamification tools matching the user “player profile” and thus raise his commitment (with an initial survey or a mini-game). The perspectives and impact are promising if we manage to create this “player profile” determining process in a tourist context.

[1] Jaberg Samuel, 2017, Deux ans après le choc du franc, une économie suisse encore convalescente, swissinfo.ch [<http://goo.gl/Q0kOxY>]

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