

Montaury Quest

Treasure hunt in an augmented reality environment

A rather high number of students in the 1st year of a Bachelor in Biology struggle to 1) integrate into their promotion, 2) identify the resources required for their success, 3) connect the various courses with each other, with their daily environment and with their eventual professional project.

The “Montaury Quest” project aims to overcome these difficulties with an **active, fun, multidisciplinary and modular pedagogy**, through an **augmented reality (AR) treasure hunt / role game** set up at the start of the academic year. While working together in different teams, students will carry out a **scientific quest**, on the entire campus (Montaury park). By interacting with real environmental elements (plants, animals, geological formations, etc.), which are augmented by theoretical course elements (biology capsules or diagrams, chemistry, physics...), methodological tutorials (physico-chemical tests, leaf area calculation, taxonomic determination...), they are **remobilizing the knowledge acquired** in high school **and anticipating that which they will acquire** during the license.

Unlike most e-learning initiatives, AR leads its users to leave their seats to interact with the real world and connects **live real-world observation** to complementary resources such as scientific concepts. In this sense, AR complements **fieldwork**, which is of utmost necessity in natural sciences curriculum but so difficult to organize and to finance for promotions with a large number of students, such as the 1st or 2nd year of undergraduate studies.

The game is designed using *TaleBlazer*, an AR platform launched by the MIT in 2013, which is easy to handle and used in teaching or enhancing public spaces (natural parks, museums, etc.). The platform can be deployed on any smartphone / tablet and paired with other resources - like E-learn, which many students still underutilize.

As the game takes place in teams at the start of the year, it also promotes the **students integration** into their promotion while allowing them to **identify and locate useful resources** (library, practical workrooms, study director's office). The content embraces as widely as possible the teachings given in Biology Bsc. The roles offered in the game correspond to different professions related to Biology.