

Gamers4Nature Project – Game creation tools to promote Environment and Biodiversity preservation awareness

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Creating engaging opportunities for young people to learn more about nature can act as a trigger for environmental awareness and consciousness about the importance of preserving nature and the balance of ecosystems. In the field of environmental and biodiversity preservation education, games emerge as an innovative approach to raise environmental awareness among younger audiences.

As digital games' potential to enhance motivation for learning has been recognized a few years to this part, challenging youngsters to create games addressing nature and biodiversity preservation revealed a greater involvement with the theme and a deeper understanding of what is learned.

When recent work in the field of educational research establishes a relationship between students' involvement in the creation of games and an increase in the interest about the addressed themes, the Gamers4Nature project (PTDC/COM-OUT/31047/2017) aims to raise young student's awareness on the importance of environmental preservation through the creation of digital games.

Along its timeframe (June 2018 to May 2022), the Gamers4Nature project directly involved more than 320 upper-secondary and undergraduate students who, using the G4N Toolkit to Game Design – a physical artifact that includes a set of resources and tools designed to support the creation of mobile digital games – created more than 66 playable prototypes of digital games addressing environmental awareness themes.

The project's results and the validity of its approach are disseminated in 6 book chapters, 10 conference papers, 6 workshops and 8 international webinars. It also led to another project (Erasmus+ funding), that currently involve 4 European upper-secondary schools, more

than 50 students and 12 teachers. The project was also the basis for 8 undergraduate projects (7 NTC and 1 Computing Engineering), 4 master degree projects (MDJD), 5 master degree thesis (3 MCMM, 2 Design), 4 PhD Thesis (2 ICPD, 2 PDMMEdu) and 2 Students@DigiMedia research activities.

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FIGURE 1

Gamers4Nature Toolkit to Game Design

FIGURE 2

Students using the G4N toolkit along a game creation session

