VirtualForests

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IO1: Didactic approach

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Hochschule für nachhaltige Entwicklung Eberswalde

cesefor

iefc European Institute of Planted Forest

HUS VNU University of Science

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Didactic approach

The basic goal of the project is to define a protocol for virtual forest tours based on three main stategies: a) definition of a simple and easy protocol for virtual tour creation, b) use of free software and popular free use servers of broad use, c) allow a broad and flexible use of the materials for different academic leves.

Complete and complex virtual tours, like the ones created in the BIOCON project (**http://bioecon.eu/virtual-forest-tours/; http://sostenible.palencia.uva.es/content/virtual-forest-tours**) open great options for asynchronic didactic online teaching approaches. Each virtual tour, allows a user selected gotrough into the forest and into the different stands. Each panorama is supported by complementary information and hotspots, thus allowing an autonomous visit to each forest or marteloscope. Great technological limitations appeared like: need of IT support for virtual tour hosting in central computers, complex picture shooting and photostitching, difficult implementations of changes in the virtual tours, need of stable and strong internet access, complex changing of the virtual tour, etc.

The basic element of a virtual tour is the panoramic image and it´s hosting in a free server. In this project we chose uploading the panoramas in google maps due to it´s easy use and broad access.

The didactic approach of a virtual tout is based on the simultaneous use of four elements: visual elements (see the forest), reading elements (supported by complementary written information and data), numeric elements (support compementary numeric data or information), scenic audio elements like videos embed in the panoramas.

Protocol defined in this project:

Visual sense: Once the image is hosted, embeding the pano in an ordinary webpage, blog or learning platform (i.e. Moodle) is the first step in the didactic approach of our protocol. The gothrough in a complete and complex virtual tour is indicated via indications (arrows, lines, etc.) This strategy in not possible in a simple virtual tour. The logical gothrough has to be defined ordering the panos and information in a logical order in a webpage, blog or learning platform.

Reading and calculating: In the complete and complex Virtual Tours the complementay written information is hosted over the panoramic image using hotspots. This process is not possible in the simple Virtual Tours defined in the present project. Hotspots are substituded by complementary information located, again, in a logical order in a webpage, blog or learning platform. This process allows an easy changing of the support materials according to the academic goals of each class or group. In a complete and complex Virtual Tour changing hotspots requires a new uploading of the complete virtual tour.

Scenic audio elements: As in the case of the complementary written and numeric information, videos can be used presenting them in a logical order in the webpage or blog.

Considering the flexible use of the different materials, synchronic didactic approaches or guided asynchronic approaches fit best for the Virtual Tours presented in this project.

The protocol here defined for forests can be replicated easyly for other subjects were the combination of visual sense supported with other materials (texts, data, maps, etc.) is needed (laboratories, museums, construction, etc.)