Active Learning in Teaching Digital Tourism

Preliminary Results Through Online Travel Business Simulation

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IARIA

Summary

- Introduction

- Smartourism Courses and Active Learning

- Online Tourism Agency Business Simulation

- Virtual TRAVEL Learning Game

Authors

- **Teaching Experience**

  - WEB programming for Computer Engineering

  - Digital Tourism for Management Engineering and Arts and Literature

- **Research Experience**

  - Smart Tourism Modeling and Design for Cultural Heritage and Smart Cities

  - European FP6 project «WORKPAD» coordinator 2010-13

  - European ERASMUS+ Project «ADHOC» local coordinator 2020-22

- **Workshop Organization**

  - IEEE-WETICE 2010 at Rome

  - Smartourism Conferences 2014-2016

Prof. Michele Angelaccio

Associate Professor of Computer Engineering

IEEE computer society

LAB smartouris

Co-funded by the Erasmus+ Programme of the European Union

Dr. Lucia Zappitelli

Communication Manager

Smartourism Courses

- **Digital Tourism** Course - Bachelor Degree
  - Web Design and e-commerce for Tourism

Web Map
- Tour Definition
- Geo Data
- Map Visualization

Travel Blog
- Web Blog Design
- Multimedia
- User Interaction

Trip Planning
- Marketing
- Cost Analysis
- Booking Platforms

Smartourism Courses

- **Data Science** Course – Master Degree
  - Data Analysis and Intelligence for Smart Worlds
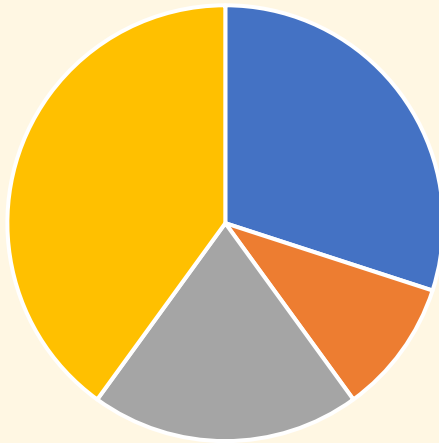
Smart Tourism

- Data Management for Sentiment Analysis
- Data Visualization for Smart Tourism Forecasting

Smart City

- Data Analysis for Energy Monitoring and Saving
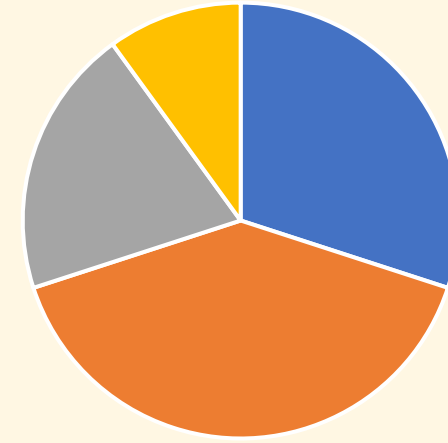- Smart Building Applications

Student Profile Survey

Activities related to Tourism

■ Small Activities ■ Medium ■ Other ■ No One

Student Origin

■ Rome City ■ Rome and out of Rome ■ Out of Rome ■ Other

Real Business Simulation Example (2022)

- ONE DAY Real Tour Experience in the Park

- *Business simulation on the field*
  - Active learning with WEB STORIES
  - Trip Planning
  - Interaction with River Park Guides

Web Stories

Bike-START

Bike-RETURN

Canoa-Lesson

Canoeing

Canoa-Setup

TRAIN

- **20** students with smartphones
- **4** bike Tours and canoa tours
- **5** Gigabytes of digital content analyzed
- **6** contributions to the PARK website portal tour portfolio

VIRTUAL TRAVEL GAME (2023)

- PROBLEMS with Real Experience with web stories

  - Hard to perform

  - Web stories are good for active learning but

  ....difficult to coordinate in a learning system

- SOLUTION:

  - TRAVEL BUSINESS SIMULATION through VIRTUAL TRAVEL GAME

    - Tour Operators as *Ancient Latin populations*

    - Travel Bloggers as Famous 18th century Travel Writers
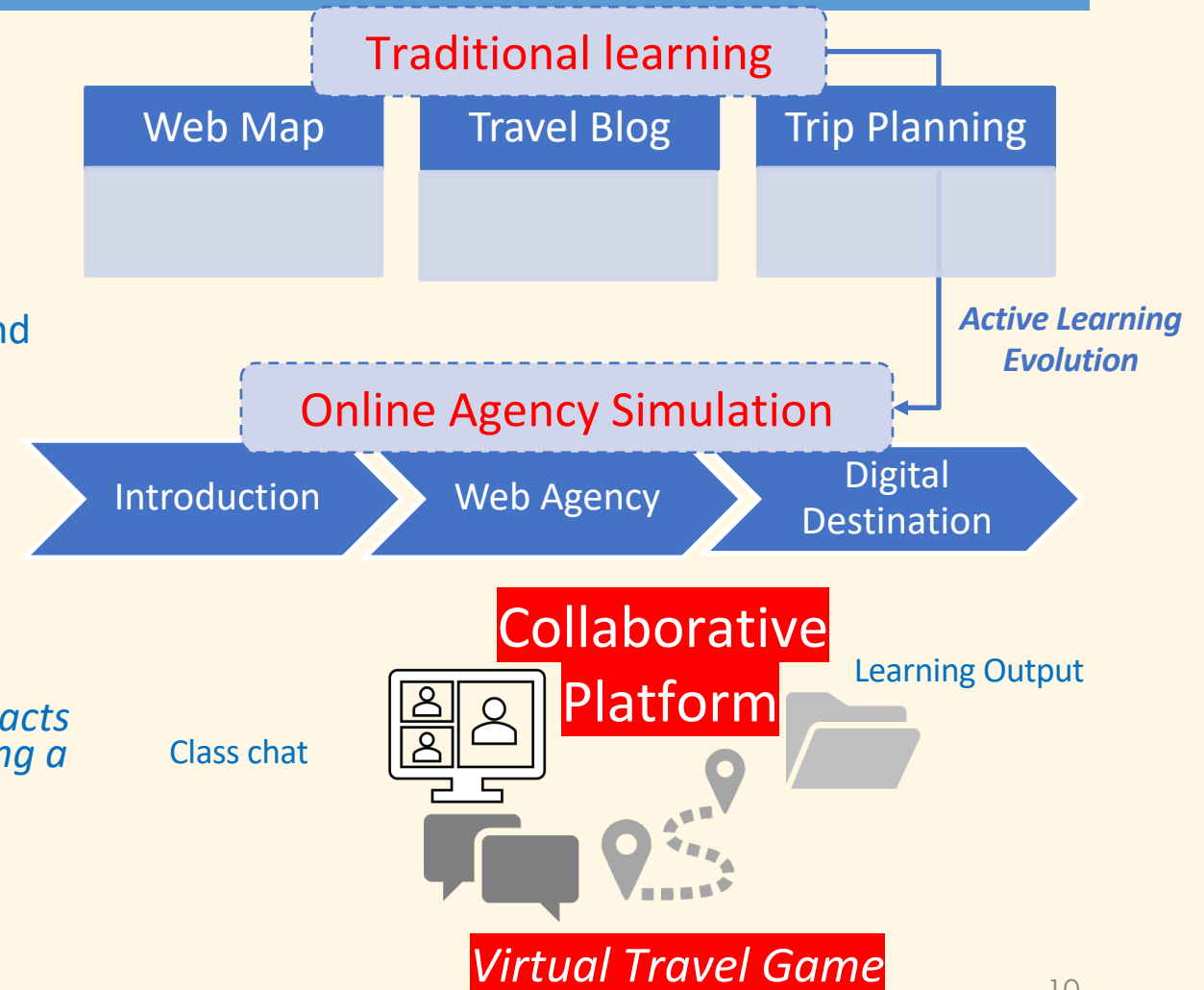
Online Travel Agency Simulation

- ***Business Simulation Approach***

- **Online Agency** Simulation
  - Web Design with templates for Travel agencies and destination management
  - collaborative platform

- **Online Travel** Business Simulation
  - VIRTUAL TRAVEL GAME
  - *Students play as Virtual Tour Operators who interacts with Virtual Travel Bloggers via chat and simulating a set of tours*

Traditional learning

Web Map	Travel Blog	Trip Planning

Active Learning Evolution

Online Agency Simulation

Introduction → Web Agency → Digital Destination

Collaborative Platform

Learning Output

Class chat

Virtual Travel Game

OTA Business Simulation

- Learning Game with
  - Web Game Platform based on
    - Wordpress Travel Templates and
    - Teams Chat/Class Platform
- GENERAL Active Learning Benefits
  - Knowledge and Organizational Competencies
    – creativity and innovation,
    – critical thinking and problem solving,
    – communication,
    – cooperation within a community group.

  - Character Quality
    – efficient use of information and ICT tools,
    – flexibility and adaptability
    – productivity,
    – leadership skills and responsibility

OTA BS Learning Outcomes

Skills	OTA Business Simulation Activities	Learning Outcomes
Cognitive	• Tour and destination discovery • web map and multimedia design • Planning and Risk analysis	• Digital Competencies • Analytical Skills
	• Searching for attractions • Creativity in content creation • Innovation in new smartourism experience definition	• Creativity
Action Oriented	• Self Management of Travel Business Process • Time Management • Task Planning	• Indipendence • Self Learning • Flexibility
Social	• Digital Competencies • Analytical Skills	• Digital Competencies • Analytical Skills

Ancient Lazio Style Virtual Travel Game

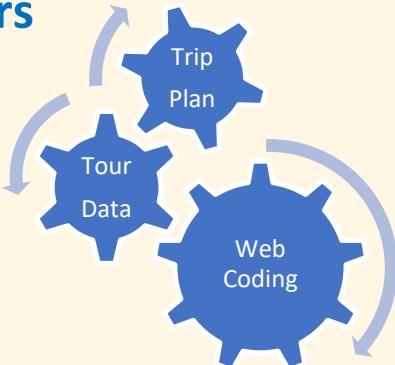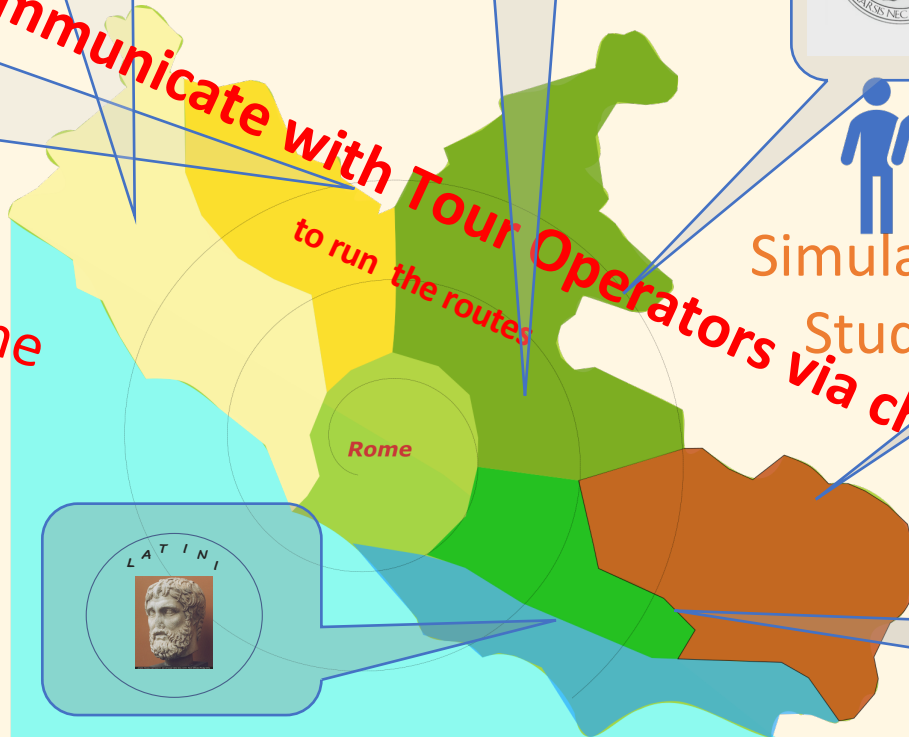«Ancient Lazio» Online Travel Agency SIMULATION

Famous Traveller Writers

Ancient «Latin» people

Communicate with Tour Operators via chat

to run the routes

Simulated by Students

Virtual Travel Blogger Game Players

Start from Rome

Rome

Trip Plan

Tour Data

Web Coding

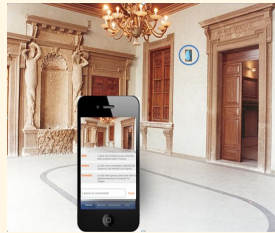Simulated by Tutor

Virtual Tour Operators Game Players

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Metaverse Perspectives

- Travel Game learning as Metaverse Experience in Tourism

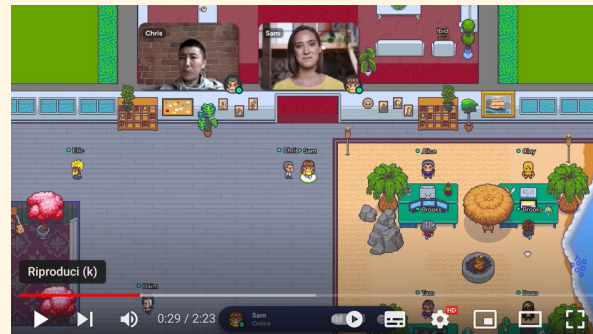 - Augmented Reality
  - *Tour* AR Immersion

  *Experimented through
  WEB STORIES on the field*

  - Virtual Reality
  - *Travel* Command Center

  *Possible New Ideas inherited by
  command center technologies and war
  games*

  - Mixed Reality
 - *Travel Adventure* Game

  *New idea from
  WORK ADVENTURE
  Metaverse*

Conclusions

- Business Simulation and Metaverse Technological immersions are giving new opportunities to enhance Learning Systems

- Digital Tourism is a key sector to successfully experience these innovations

- Game Learning could combine all things in a single immersive learning scenario
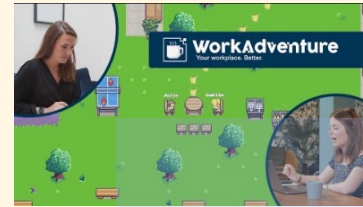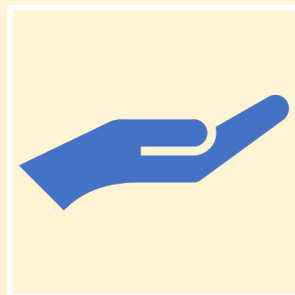

Travel Adventure Cultural Metaverse
Example of «Goethe Paradise» in Castelli Romani
by SmartourismLAB

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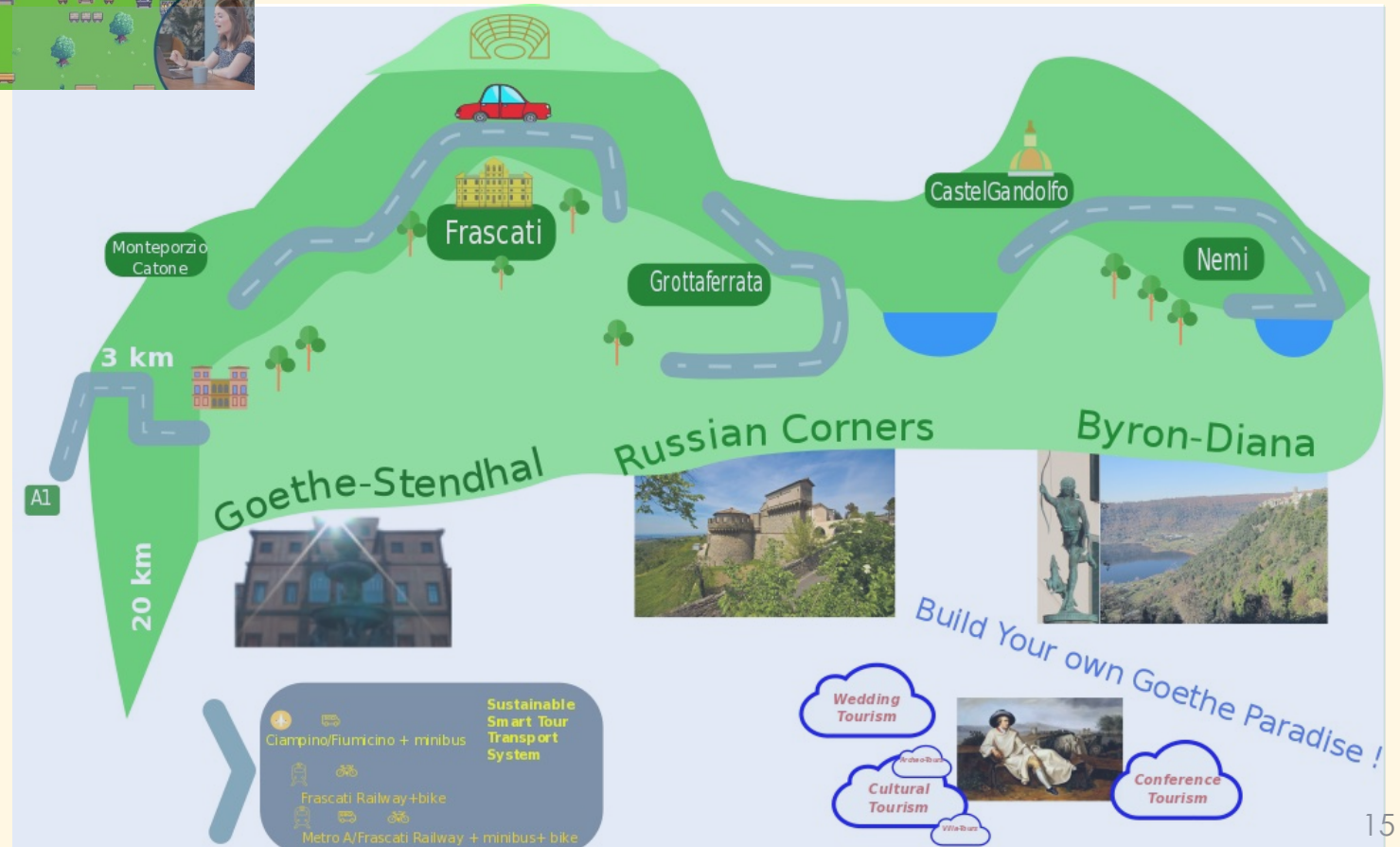
Thanks !!!!

Keep in Touch !

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