TESLA

The 1st Symposium Of Digital Transformation in Continuing Education

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Virtual Reality as Innovative and Immersive LEARNING Tool in Palestinian HEIs

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A MATTER OF PERCEPTION ?

Everything that we know about our reality comes by way of our senses …

- our entire experience of reality is simply a combination of sensory information and our brains sense-making mechanisms for that information

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What is Virtual Reality ?

- the computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors.

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Current trends in Virtual Reality

- Architecture
- Sport
- Medicine
- The Arts
- Entertainment
- Business
- Education
- Justice

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Why Virtual ?

- modeling complex task-performance behaviors, many of which carry life-or-death risks in real-world learning.
- virtual reality is used to create interactive scenarios which reflect real-life situations.
- Making Learning Fun and Interesting.
- Save on Cost.

My own experience

- I used MS. Flight Simulator for few years starting with single propeller engine aircraft to wide-body commercial passenger Jets.
- I started with visual flight rules and finished with more advanced technics with instrument flight rule (foggy weather, blind landing, etc.).
- When you become more advanced you can increase the realism of you flight and you create challenges (emergency landing, engine failure, etc.).
- Even experimented pilots get back to flight simulators more often to comply with the newest safety procedures to avoid accidents and how to manage problems during flights.

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TESLA in few words

- **TESLA is an innovative capacity-building project co-funded by the ERASMUS+ Programme with the objective of implementing Virtual Reality Technology into Palestinian Higher Education Institutions.**

TESLA IS INNOVATIVE

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TESLA project will bring a lot of innovation to the Palestinian partners involved into the project.

- Setting-up a common VR development framework throughout Palestinian HEI's providing excellence in term of instructional design, development, and exploitation of services.
- Designing, piloting, and evaluating first courses which integrates the VR concept.
- Creating an international research network about VR integration into instructional technologies.
- Implementing immersive learning experience into technical courses with a high - level of abstraction like topography, criminology, and geography.

TESLA IS IMMERSIVE

- **Immersive learning places individuals in an interactive learning environment, either physically or virtually, to replicate possible scenarios or to teach particular skills or techniques. Simulations, role play, and virtual learning environments can be considered immersive learning.**

TESLA IS INTERACTIVE

- **“Interaction Design is the creation of a dialogue between a person and a product, system, or service. This dialogue is both physical and emotional in nature and is manifested in the interplay between form, function, and technology as experienced over time.”**

The core of the project

- **Biology : DNA Extraction and Analysis.**
- **Geography : Geography and topography of Palestine with a special focus on Jericho Area.**
- **Physics : Newton experiments in a virtual laboratory.**

The TESLA Consortium

- 3 European partners
  - Slovak University of Agriculture.
  - University of Patras.
  - University Polytechnic of Bucharest.

- 4 Palestinian Universities
  - Al-Istiqlal University.
  - Al-Quds Open University.
  - American Arab University.
  - Palestine Polytechnic University of Hebron.

Project Structure

- Phase 1 : training and preparation.
- Phase 2 : Development.
- Phase 3 : Piloting semester.

Last but not least

It is amazing what a computer can do ..

Questions or comments ?

Thank you