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THE NEW FRONTIERS OF EDUCATION

abstract

More than 190 nations, all the continents and around 2 billion students have been affected by the effects of the pandemic with a subsequent progressive increase in innovation in the education sector with more people resorting to immersive technologies such as virtual reality (VR) and augmented reality (AR) as they allow the exploration of digital learning material in new, innovative ways.

Augmented Reality (AR) systems embed virtual information into the user's real environment, creating the illusion that the information exists there. The use of AR, therefore, allows you to "add" "augmented" content to the real world represented such as, for example, from three-dimensional (3-D) models, photos, audio and video files, links to websites, documents in diverse formats (pdf, excel, ppt, etc.)

AR also allows students to view static virtual objects or information within a physical space and this is particularly advantageous when the object itself has more educational value (for example: placing the virtual model of a sculpture or historical artifact in a classroom

Virtual reality (VR), on the other hand, is generally defined as the use of a threedimensional computer-generated world with which the user can interact. It allows users to have a totally immersive experience, using special devices - viewers - which, through stereoscopy, show slightly different images to those of each eye, creating an illusion of depth, allowing the wearer to experience, firsthand, adventures and experiences, breaking down geographical barriers and simulating any setting. Virtual reality adopts the principle of "learning by doing" and allows users to "immerse themselves" in the simulated situation, to put into practice what they have learned but be aware that the creation of courses in virtual reality costs more than traditional e-Learning.



MOVIE EDUCATION

In this chapter you will learn about:

- What is Movie Education
- How to run Short Movie Laboratories
- How Audio-visual Production works
- Enable your students gain a deeper understanding and knowledge of contents
- Enable your students boost individual creativity, team working, problem solving, time management, and emotional-relationship capabilities

Tools and practical examples of movie education

abstract

Movie Education represents one of the most innovative and recent approaches in edutainment, being a new methodological model combining entertainment and and improving learning the learning experience of students. Through an integrated methodology, focused on the learner and the use of audio-visuals. the Movie Education approach provide enables teachers to contents and educational stimuli in a more engaging and effective way, turning students into the real protagonists and creators contents.

Keywords: edutainment, movie education, engagement, short movies, audio-visual



INSTRUCTIONAL DESIGN

In this chapter you will learn about:

- What is the Instructional Design
- What are the most common models of Instructional Design
- How to plan, develop, evaluate, and manage the instructional process of learning;
- How to create experiences that facilitate learning in an efficient, effective, and engaging way.

Tools to support Instructional Design

abstract

Instructional design can be defined as a systematic approach to effectively plan, develop, evaluate, and manage the instructional process based on knowledge and experience of learning teaching theories to improve the quality of instruction and ensure the effectiveness and persistence of learning. lt also includes information technology, humaninteraction. computer human performance techniques and systems analysis methods and it can be applied to both physical and virtual education, including online courses. The goal of instructional design is to help educators create experiences that facilitate learning in an efficient, effective, and engaging way.

Keywords: instructional design, models of instruction design, learning design considerations, learning designers' competences, tools for instructional design

GAME BASED LEARNING

- 1. In this chapter you will learn about:
- 2. What are the concepts of edutainment, game-based learning and gamification
- 3. What are the main theories connected to game-based learning and gamification (behaviourism cognitivism and constructivism)
- 4. The game mechanics based on Bloom's taxonomy
- 5. Models for designing games (ADDIE, SADDIE and ELECTRA)
- 6. Tools and practical examples of gamification

abstract

Game-based learning is a kind of edutainment that rests upon the idea of using the motivational and immersive potential of conventional video games in the educational context to enhance learning and teaching process. Gamification is slightly different as it advocates the use of game-design elements in non-game contexts. More generally, Edutainment is a combination of entertainment and education. The main purpose of edutainment is to promote student learning through exploration. interactivity, community experience, teamwork, trial and error, and repetition in such a way that students get so lost in the fun that they do not realise they are learning at the same time.

Keywords: edutainment, game-based learning, gamification, theories of learning, game mechanics