

3<sup>rd</sup> Global Summit and Expo on

# MULTIMEDIA & ARTIFICIAL INTELLIGENCE

July 20-21, 2017 | Lisbon, Portugal

## Designing video games

Nuria Medina Medina<sup>1,2</sup>

<sup>1</sup>University of Granada, Spain

<sup>2</sup>CITIC-UGR, Spain

The video game industry continues with its high rate of growth and, correspondingly, video games are a product present in most of the first-world households. Thousands of people around the planet work in the development of games and billions of players enjoy these multimedia creations; however, from an engineering perspective, critical issues in the design of these video games are not being sufficiently considered. Therefore, an academic effort to identify and analyze which are the keys of a good design and the possible design solutions in each particular context should be done in relation to the productive and unstoppable world of video games. With this aim, taxonomies, guidelines and design patterns are different approaches in which we have been working. On the other hand, serious games must be specially attended since the serious propose involved in the game implies the need to design and integrate no-ludic contents and the collaboration with no-technical professionals during all the process. In the first case, it is essential to introduce the serious elements in the game so that they remain hidden within the ludic contents. In the second case, an adequate language is crucial to facilitate the communication between the technical team and the subject-domain experts (educators, doctors, etc.). Particularly, our group has been researching to achieve the indispensable balance between the ludic component and the instructive component in educational video games. As a result, our design methodology establishes a 'divide and conquer' approach where the game challenges and the educational goals are designed and interrelated making use of graphics notations, which allow modeling of the artefacts of the educational video game in a comprehensible form for all the stakeholders. As a study case, an educational adventure to promote reading comprehension has been developed and is being evaluated.



## Biography

Nuria Medina Medina completed her PhD in Computer Science at University of Granada (UGR) in 2004, proposing an adaptive and evolutionary model for hypermedia systems. Nowadays, she belongs to the direction team of the Research Centre for Information and Communications Technologies (CITIC-UGR) and is Professor in Department of Computer Languages and Systems at Spanish University where she directs a project that implements educational games in Andalusian School classrooms.

nmedina@ugr.es

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