Abstract

The tools of teaching have known a big evolution with the integration of the new technology in the learning process, especially the serious games, thus the appearance of several input devices, e.g. "leap motion controller, kinect, etc." has expanded the scope of the users which reaches people with disabilities e.g. "blind, deaf, etc." and that use this kind of video games. This paper will detail the development of a web based serious game dedicated for deaf children, in order, that they learn the Arabic sign alphabet, through both an input device called leap motion controller and hand gesture recognition based in the artificial neural network. The proposed serious game will be integrated in a learning management system via the use of the Scorm standards, in order to make the course on e-learning platform more interactive.

References

Teaching Arabic Sign Language through an Interactive Web based Serious Game

and Deaf Education, 10, 212-221.
- M. A. Abdel-Fattah, Arabic Sign Language: A Perspective, Journal of Deaf Studies and Deaf Education vol. 10 no. 2, Department of Languages and Translation, Birzeit University, 2005.
- João Gameiro, Tiago Cardoso, Yves Rybarczyk. Kinect-Sign: Teaching Sign Language to &quot;Listeners&quot; through a Game. eINTERFACE 2013: 141-159.
- Leap Motion Controller. Available online: https://www. leapmotion. com (accessed on 21 October 2014).

**Index Terms**

Computer Science

Web Services
Keywords

Serious Games  Scorm  e-learning  ANN  Sign Language