

Enhancing Higher Education through 3D Stereo Learning Objects

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This paper considers the use of 3D stereo techniques to produce learning objects and their use in higher education. In using 3D stereo learning objects, learning materials, whether being viewed in the classroom or through distance learning, immediately gain value and interest for students generating an immersive feel and engaging learning experience. In doing so learning objects, particularly those requiring spatial reasoning, achieve increased comprehension amongst students and cause the learner to become absorbed in rich visual media. Techniques are shown to allow the production of 3d stereo learning objects at low administrative cost for educators but at high educational gain for students. In considering these techniques the production, deployment and reflection upon educational merit for particular learning scenarios in using 3d stereo learning objects is analysed through an asset production pipeline. The class of object and its domain of operation are correlated to surmise suitable uses for the net generation learner of today.

Keywords: Stereoscopic, 3D, learning objects, electronic and electrical engineering