**REVIEW OF THE USE OF AI TECHNIQUES IN SERIOUS**

**GAMES: DECISION-MAKING AND MACHINE LEARNING**

**ABSTRACT:**

The video-games market has become an established and ever-growing global industry. The health of the videoand computer games industry, together with the variety of genres and technologies available, mean that videogameconcepts and programs are being applied in numerous different disciplines. One of these is the field known asserious games. The main goal of this article is to collect all the relevant articles published during the last decadeand create a trend analysis about the use of certain artificial intelligence algorithms related to decision making andlearning in the field of serious games. A categorization framework was designed and outlined to classify the 129papers that met the inclusion criteria. The authors made use of this categorization framework for drawing some conclusions regarding the actual use of intelligent serious games. The authors consider that over recent years enoughknowledge has been gathered to create new intelligent serious games to consider not only the final aim but also thetechnologies and techniques used to provide players with a nearly real experience. However, researchers may needto improve their testing methodology for developed serious games, so as to ensure they meet their final purposes.