

# Jordan University of Science and Technology

## Using Immersive Virtual Reality as an Application for Knowledge Dissemination: A Framework for a Generic i-Teacher

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**Abstract:** Teaching generic and subjectively interactive courses is a challenging task due to the abstract/discrete model of interaction and the commonly used teaching methodologies. Hence, classical teaching methods are becoming inadequately supportive of instructors in disseminating knowledge to students efficiently and effectively. We believe information technologies could lay a hand to overcome this challenge. IT promises the emergence of the era of i-teacher. Different IT-based solutions could be suggested in the development of an i-teacher. Our proposal promotes the utilization of the technology of virtual reality. Our project starts with the development of a framework for a generic i-teacher that can be used to guide designing different systems supporting learning in different areas of knowledge. The framework defines a gaming environment supported by the technology of virtual reality and distinguished by a real-time feedback process resulting from embedding an evolutionary component. Such framework is expected to facilitate the level of interaction between students and their instructor and among students themselves in a multi-hop cooperative/competitive networking environment. The evolutionary component will enable an i-teacher system to progressively move up levels of difficulty presenting to students new concepts upon their successful completion of the objectives in the lower level. The students are guided by a shared set of beliefs acquired through their social network. The simple and intuitive interface that the i-teacher system will provide is expected to significantly influence the learning process from the students' perspective and the knowledge dissemination process from the instructors' perspective.