The User Requirements of Game-Based Learning in Fire Safety for Preschool Children

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Fire is a leading cause of injuries that threaten lives especially young children who are particularly exposed to fire hazard. A key ingredient of promoting children to learn the basic skills of survival in fire safety is by teaching them promptly through interactive learning using tablet. Due to lack of awareness on fire safety education, there is a need to educate the children based on their cognitive, behavior, and psychomotor aspects. This paper discussed on the user requirements for conceptual model development of Game-Based Learning in Fire Safety that were obtained through User Centered Design (UCD) method.

Keywords: Game-Based Learning; Engagement; User Interaction; Fire Safety; Children

Big Data Analytics for Healthcare Organizations: A Case Study of the Iraqi Healthcare Sector

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The rapid development of the healthcare industry in recent years has yielded a huge output of clinical, medical, and public health data with immense and complex structures that cannot be processed by conventional technologies. Therefore, new technology must be developed to handle such massive data sets, appropriately called “Big Data,” for the analysis and discovery of hidden patterns with visualization. Big data analytics involves the discovery and visualization of hidden patterns, and the analysis of knowledge derived from the data to support decision making. In this paper, we present an overview of the big data definition, its characteristics, and the advantages of big data analytics in healthcare. We also examine the current Iraqi healthcare system and highlight the major challenges facing the healthcare sector that cannot be handled by conventional technology for data analysis. In addition, we provide suggestions on overcoming these challenges via technologies using big data analytics. Consequently, we emphasize the value of employing big data analytics technology in the Iraqi healthcare sector. We address the main benefits and advantages that big data analytics can provide and propose a conceptual healthcare architectural framework based on big data technology to aid Iraqi healthcare organizations in shifting from traditional analysis to big data analytics. The proposed health architectural framework for the Iraqi healthcare sector, includes four components namely, raw data (data collection), data preprocessing, data analysis, and information presentation. The paper concludes with the expected advantages of utilizing the proposed architectural framework for Iraqi healthcare organizations and the recommended solutions to encourage healthcare practitioners in adopting big data technology. Such technology can be optimized to monitor patient-related records and predict diseases, thereby improving care, saving lives, and minimizing costs.

Keywords: Healthcare, Big Data, Big Data Analytics, Iraqi Healthcare System, Healthcare Organizations