



EDUCATIONAL DIGITAL GAMING DESIGN FOR CHILDREN ON SIBER SECURITY AND SOCIAL MEDIA ETHICS

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ABSTRACT

The game is called activities that individuals do to have fun and have a good time. Computer games have become widespread especially in educational activities after the 90's. Computer games are very important for social and mental development. According to the researches conducted, it was observed that primary, secondary and high school students spend a lot of time during the day playing games on digital platforms. The concept of the game to the kids before the 2000s, the establishment of social relationships, competitive and based on the relationship established in the virtual world to the real relayed around the world a fun time passing vehicle while today's children, it was determined that perceived spend a fun time. The rapid development of digital games and the increase in the number of games developed are investigating the effects of games on human behavior and social relationships. As a result of the collaborations of trainers and software developers, a lot of tutorial software applications are being designed. When the relevant games are examined, it is seen that gaming softwares have been developed especially to increase the cognitive levels of kindergarten and primary school children. However, it has been found that the victimization of children in the virtual world is caused by the inadequacy of cognitive information on the basis of information security and social media ethics. For this reason, a game design has been developed in order to create information security and social media awareness in the work. The aim of the game is to teach children how to protect themselves from the dangers of the virtual world. With the developed game, primary, middle and high school level individuals will have the opportunity to learn about cyber security and social media ethics as well as having fun while playing the developed game. Three levels were developed to improve cognitive levels in cyber security and social media ethics in game design. Each level will be attempted to achieve a concrete recovery from the various issues in this area (malicious software such as Trojan, Worm, Spam, Malware, Virus, malicious behavior types, social engineering attacks, cyberbullying etc.). Based on the role-playing game (RPG) method, the named avatar named "GüvenCan" was created and the responses and responses given to the questions about the concepts of cyber security, information security and social media ethics were realized and the learning process was realized. The feedback given in the vote is positive reinforcement, ensuring that the learner is permanent. The characters and graphic objects used in the design of the game are prepared in 2D in Photoshop program. Design is realized by providing the integration of Unity and MonoDevelop in the Visual Studio platform and the code created in C # programming language. Designed with Unity, the game will not only be available on the computer but also on mobile platforms (mobile phones, tablets, etc.). On desktop platforms only the keyboard can be played through the touch screen on mobile platforms. In order to prevent children from



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distracting during play, the game progression stages are short and using moving objects that require focus. Topics covered in the game content are designed taking into consideration the main topics included in the source named "Awareness Raising" on the official website of Information Technologies and Communication Agency. It is envisaged that users will be aware of cyber security, information security and social media ethics with this game. Especially, it is considered that the game designed at the point of efficient and effective use of the tablets distributed in the FATİH project in our country will contribute. The designed game will contribute to the issues of harmful software, ethical values, digital citizenship, confidentiality and security issues and technologies to be used in the scope of the 5th and 6th class "Information Technologies and Software Course" given in the secondary education institutions affiliated to the Ministry of National Education . It is also envisaged that Vocational and Technical Anatolian High Schools will contribute to the understanding of the topics of harmful software covered in "The Basics of Information Technologies" given to 10th grade students.

Keywords: Cyber Security Awareness, Social Media Ethics, Digital Game Design