Exploring Gamification and Related Models in Enhancing Disaster Mitigation and Preparedness

Gianisse Marie Adamantopoulos\textsuperscript{1}, Mikko Fullero\textsuperscript{2}, Ferdinand Maximillian Sembrano\textsuperscript{3}, Antony Nuel Villanueva\textsuperscript{4} and Ma. Victoria G. Pineda\textsuperscript{5}

\textsuperscript{12345}Information Technology Department, De La Salle University Manila

Abstract: Disasters have made a big impact by destroying different infrastructure and lives of people. It is evident that there is a lack of knowledge and strategy on implementing disaster management that could alleviate its devastating effects. Furthermore, is the lack of application on being prepared in an upcoming disaster. There is a new strategy that can help increase knowledge and application when it comes to disasters, which is the concept of gamification, which is the implementation of game elements such as quests, leaderboards, trophies and ribbons that would be implemented in a non-game platform.

This paper introduces the integration of gamification within the disaster mitigation and preparedness process under the disaster management life cycle. The main goal of the study is to equip the community with necessary knowledge on disaster mitigation and preparedness concepts that would help them prepare for an upcoming disaster. Adding the concept of gamification could further increase the motivation and interest of people to do disaster mitigation and preparedness activities within the community. It could also reduce the impact of a disaster within the community that can save lives and lessen casualties that may occur. In addition, the people would also have a real life application on implementing different disaster mitigation and preparedness activities so that they could gain learning and mastery at the same time. Lastly, gamification is a new innovation in technology that can enhance a specific field such as disaster mitigation and preparedness that could help people practice different disaster mitigation and preparedness activities in a fun and exciting way and at the same time, have application and learning within the community.

Keywords: Gamification; Disaster Mitigation and Preparedness