

Encouraging self-learning and discovery through gamification of tutorials

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Abstract:

This project explores whether gamification could be used to effectively motivate students to engage with advanced concepts in information security. Gamification is the introduction of game mechanics to a non-game setting with the goal of motivating individuals through their desire for competition, rewards and status. In other words, it takes the elements that make people enjoy playing games and introduces those elements in the learning process, e.g. interesting narrative or a scoring system and leaderboard. This project will develop and implement a set of information security tutorial tasks incorporating game mechanics. After students complete compulsory basic tasks they can choose to attempt tasks that increasingly require the student to seek solutions on his/her own. As student work through tasks they can choose which skills to practice and build up and eventually tasks will have no known solution, an approach we hope will encourage self-directed learning and discovery.