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Check Your Tech - The Ethics of Gamification in Education

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ABSTRACT

Gamification has been hailed as a meaningful solution to the perennial challenge of sustaining student attention in class (Gordon, *et al*., 2020). It uses facets of gameplay in an educational context, including things such as points, leaderboards and badges (Blohm and Leimeister, 2013) These are clearly efforts to make the student experience more entertaining and engaging, but nonetheless, they are also clearly digital nudges and attempts at behavioural economics to change the students' behaviours and attitudes to a specific set of concepts (Weinmann, *et al*., 2016), and in which case they must, and should, be subject to the same ethical scrutiny as any other form of persuasion technique, as they may be unintentionally eroding the choices that students feel they have.

Looking back at the history of the ethics of games, it is worth noting that the ethics embedded in how a game is played do not always fit the real world. What Huizinga (1949) termed the "magic circle" of a game that separates the real world from the game world thus having separate sets of rules and morals within each does not always demonstrate a clear-cut distinction between the two. As Kim and Werbach (2016) note, gamification can convolute the boundaries between these two worlds. For example, deceit and bluff can be essential elements of some games, however these behaviours are frowned upon in a normative everyday setting. Another example is the gamification of labour by assigning scores to workers by using so-called 'leaderboards'. This is a common technique in videogames which can potentially increase players' motivation in improving their performance. In real-world scenarios however, visualising employees'' productivity using numerical scores can be considered humiliating, insulting and even downright offensive (Kim & Werbach, 2016).

Gamification strategies are also very common in education. Toda *et al*. (2017) in their systematic review of the literature of gamification in education found that there is a lack of instructional design frameworks which would aim at the development of accurate gamified approaches that positively impact students. To this they attribute the four most cited issues of gamification in education which are, namely and ordered by frequency, the loss of performance, the appearance of undesired behaviours, indifference and declining effects. Kim and Werbach (2016) also argue that even though gamification has been criticised extensively on the morality of its uses there has not been a significant ethical framework to examine said uses. They go on to denote four potential areas of moral concern of gamification that can turn into unethical practices in the workplace. These are exploitation, manipulation, physical and psychological harms and negative affects to character traits. They propose the need for more analysis towards the cultivation of a "*full framework for normative evaluation of gamification systems*".

This issue is one of grave concern, and is one of a rapidly growing number of computer ethics issues that have been emerging recently, to such an extent that a number of third-level institutes across Europe are collaborating to explore some of these key ethical challenges, and to develop educational content that is both based on pedagogically sound principles, and motivated by international exemplars of best practice to highlight these matters as part of the Erasmus+ Ethics4EU project (O'Sullivan and Gordon, 2020). One specific development that is being undertaken is the creation of a lesson focusing on behavioural economics, and concentrating specifically the ethics of digital nudges that can have a negative impact on people's lives.

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