

EXPANSION SET FOR INTERMEDIATE MEASURES OF PERFORMANCE – ACHIEVEMENT SYSTEMS IN SIMULATION GAMES DEVELOPMENT.

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ABSTRACT

Recent attention around using game design elements and techniques in non-game contexts which is recognized as gamification (Deterding 2011) has got influence on the games medium as well. That includes serious games and its subcategory – simulation games. As gamifying simulation games Author suggest implementation of game mechanism called 'achievement'.

Achievements in video games are rewards or recognition earned by players for in-game accomplishments (Blair 2011). In 2005 Microsoft introduced new feature of Gamerscore that was tracking players actions and rewarding them with external point system connected with Xbox 360 players profile. To earn Gamerscore player needs to pass certain conditions that are set by game designers. By combining conditions, value with specific name, designers are creating achievements that are now available in majority of video games (including smart-devices and social networks games). Whole communities started to gather together on online forums just to exchange ways of completing every achievement in particular game and discuss solutions for most demanding tasks. Addictive characteristics of virtual rewards as achievements were incorporated also by software developers. To give an example – Duolingo, mobile and web application created for teaching various languages is visualising users' skillset of certain language by achievements. Achievements are treated as extrinsic motivators to fulfill conditions, but system of achievements can be perceived as intrinsically motivating – need of getting the whole collection of virtual prizes or just more than other players is strong for all of us.

Popularity of that mechanism among players and the quite easy way of creating such rewards is faintly appearing in simulation games. Author's first contact with achievements in that genre was back in fall 2014 when achievements were introduced into

Marketplace Live simulation (ILS 2014). Set of 34 achievements was introduced to the simulation (most of each were common to all variations of Marketplace, but some were specific for certain scenarios). Students' reactions to that additional rewards were visible during classes which resulted in idea to deepen the understanding of the use of achievements in simulation games.

As a theoretical basis for the research Author will use one of the ways of dealing with complexity in simulation games design called intermediate measures of performance (Cannon 1995). In case of Marketplace there is internal Balanced Scorecard for measurement of players performance. Its limitation is focus only on hard results of the player (or team), which means that results of calculations based only on mathematical model of the game. Students from so-called Generation Y and younger are not used to this kind of feedback and they feel lost and uninformed about their situation on the market within the game. Introducing virtual achievement as additional measure of performance can be the right direction to solve that problem.

Author already performed a short survey with the students about recognition of achievements system and their satisfaction spirit of feedback distribution within Marketplace Live. The outcome is that they like this form of being informed about their out of ordinary accomplishments. Although they have too little information about structure of achievement system. What is more – not all of the decision areas are covered with achievements, so it is hard to strengthen every player motivation. Second part of the research is under development. Author will present his own achievement system suited for Marketplace Live simulation. It will be made with use of survey feedback and construction of small prototypes of achievements around Marketplace decision areas. Later on, with cooperation with ILS that system will be tested in-class environment for better adjustment of achievement conditions and feedback needs of students. Third part of research assumes full implementation of upgraded achievement system and further tests on international players of that simulation.

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