

GAMIFICATION IS A TREND IN MOOCS?

N. N. Datsun¹²¹

Abstract: The article is devoted to the study of the state of gamification in education and in massive open online courses. The study of publications presented in the public domain showed the formation of the trend of gamification in MOOCs in 2014-2017. The elements of gamification that are responsible for the motivation of MOOCs students and complement the generally accepted elements of Points, Badges and Leaderboards (PBL) are revealed.

Keywords: gamification, education, massive open online courses, motivation, elements of gamification, trend.

ГЕЙМИФИКАЦИЯ - ТРЕНД В МООС?

Аннотация: Статья посвящена исследованию состояния геймификации в образовании и в массовых открытых онлайн курсах. Изучение публикаций, представленных в открытом доступе, показало формирование тренда геймификации в МООС за 2014-2017 гг. Выявлены элементы геймификации, отвечающие за мотивацию обучающихся МООС, которые дополняют общепринятые элементы Points, Badges and Leaderboards (PBL).

Ключевые слова: геймификация, образование, массовые открытые онлайн курсы, мотивация, элементы геймификации, тренд.

Introduction

The terms "Massive Open Online Course" and "gamification" appeared almost simultaneously in 2008.

Dave Cormier and Bryan Alexander coined the acronym MOOC to describe the course CCK08 (Connectivism and Connective Knowledge) prepared by Stephen Downes and George Siemens (University of Manitoba). MOOCs as one of the modern technologies of e-learning attract thousands of students from around the world, but show an extremely low level of completion compared to traditional education. Academic community is looking for ways to solve the problem of low motivation of learners [1] MOOCs, one of which is their gamification.

¹²¹ Perm, Perm State University, e-mail: ndatsun@inbox.ru

Sebastian Deterding defined the concept of gamification as "the use of game design elements in non-game contexts". His approach is aimed at improving the user interface and interaction, and was originally used in the digital media industry. But then gamification has infiltrated beyond the entertainment business, including in education. Strengthening the intrinsic motivation of learners through instant feedback in action is considered the main value of gamification. According to Gartner Hype Cycle, achieving the planned level of performance in gamification should be expected in 2018-2023 [2]. Therefore, the aim of this work is to study the state of gamification in MOOCs as a direction to increase motivation of learners.

1. Research questions

In this paper we formulated the research questions, which will reveal the potential of gamification to motivate MOOC learners:

RQ1: Publication activity about gamification in education.

RQ2: Publication activity about gamification in MOOC.

Answers to these questions will help to test the research hypothesis of our study: "Gamification has the potential to become a trend in mass open online courses".

2. Input data

Scientific publications with open access about gamification in education were chosen for research.

3. Research methodology

The research methodology included stages corresponding to the search for answers to research questions:

- search and analysis of systematic literature reviews on gamification in education in order to identify trends in the use of gamification elements;
- search and analysis of scientific publications to identify trends of gamification in a MOOC.

To respond to RQ1 was searched for scientific publications with a search string in the title: ("Systematic Mapping Study" OR " Systematic Literature Review" OR "Review of Literature" OR "Systematic Review" OR "Systematic mapping" OR ""Review") AND ("Education" OR "Educational") AND ("Gamification" OR "Gamifying" OR "Game Based Learning").

MOOCs and gamification are developing in parallel. The avalanche-like expansion of MOOCs began in 2012, and the starting point of the gamification wide use is considered the second half of 2010. But already in 2014, the first publications on empirical studies of gamification in MOOCs in order to

5. Discussion

The dynamics of publication activity on gamification for the period 2014-2017 testifies to the formation of the trend of this type of educational software as gamification both in education and MOOCs. This confirms our research hypothesis. EGs that are responsible for motivation are Points, Badges and Leaderboards (PBL) [2, 7]. Our study showed that PBL ranks in the Top-5 of the general EGs in accordance with the related [2-10]; the EGs rating also includes levels (1st place) and storyline (5th place). The Top-5 elements of gamification in MOOCs in the review [7] and in our study include four elements from the common EGs (levels and PBL), the fifth element is progress. However, the badges and the leaderboards occupy the leading positions among EGs of MOOCs against the levels and points among the general EGs. This ranking of EGs reflects the loneliness of students MOOCs and needs in their motivation with the EGs identified in the research on gamification in MOOCs.

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