Beata Zatwarnicka-Madura[1]

GAMIFICATION: CURRENT STATUS, TRENDS AND DEVELOPMENT PROSPECTS

The phenomenon known as gamification is based on the implementation of games mechanisms in various fields of human life. Gamification is used in marketing, HR management (in recruitment, motivation), education and many other business processes. The significance of this trend encouraged the author to seek new directions and prospects for gamification development, which constitutes the purpose of this article.

Keywords: gamification; computer game; survey.

Беата Затварницька-Мадура

ГЕЙМІФІКАЦІЯ: СУЧАСНИЙ СТАН, ТЕНДЕНЦІЇ ТА ПЕРСПЕКТИВИ РОЗВИТКУ

У статті показано, що явище, відоме як гейміфікація, базується на впровадженні механізмів гри в різні галузі людського життя. Гейміфікація використовується в маркетинговій діяльності, управлінні людськими ресурсами (в процесі підбору, мотивації), освіті та інших сферах бізнесу. Визначено напрями та перспективи розвитку гейміфікації.

Ключові слова: гейміфікація; комп'ютерні ігри; опитування.
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Беата Затварницка-Мадура

ГЕЙМИФИКАЦИЯ: СОВРЕМЕННОЕ СОСТОЯНИЕ, ТЕНДЕНЦИИ И ПЕРСПЕКТИВЫ РАЗВИТИЯ

В статье показано, что явление, известное как геймификация, базируется на внедрении механизмов игры в различные области человеческой жизни. Геймификация используется в маркетинговой деятельности, управлении человеческими ресурсами (в процессе подбора, мотивации), образовании и других отраслях бизнеса. Определены направления и перспективы развития геймификации.

Ключевые слова: геймификация; компьютерные игры; опрос.

Introduction. Gamification involves applying game mechanics and the way of thinking in games to engage people. Gamification is the process of engaging audiences by leveraging the best of loyalty programs, game design, and behavioral economics (Zichermann and Linder, 2013). Originally, gaming mechanisms were used in military simulations. But gamification developed most dynamically on the basis of marketing and employee motivation systems. Development of gamification is the manifestation of certain socio-cultural factors that contribute to effective adaptation of games mechanisms. They become part of education, branding, HR management, they are developed in business, in motivating employees. The increasing possibility of using gamification encouraged the author to seek new directions and development prospects in this context.

The essence of game mechanics and gamification. Game mechanics is a set of tools such as points, awards, badges, leaderboards, challenges, communication system between players who are maintaining continued commitment. An important element of the game is the story which makes sense for players. Game is composed in such a way as to affect players using external motivators (rewards and punishments)

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[1] Rzeszow University of Technology, Poland.

and internal ones (status, altruism, affiliation). A large part of marketing tools are linked only to external motivators. Game developers emphasize that a very important issue is to create a state in which players take pleasure in improvement. In games such a condition is referred to as a flow.

On the basis of the analysis of successful projects based on gamification 3 pillars that guarantee strong and long-term commitment of participants were identified. These are: fun, friends and feedback. The "fun" pillar is understood as contentment, which does not necessarily have to be associated with something funny. It is a momentary entertainment that provides feelings of pleasure. Another gamification pillar — "friends" is the opportunity to play in a community, invite friends, meet new people, cooperate and/or compete. In turn, "feedback" means here receiving response on one's actions.

Some marketing tools, e.g. loyalty cards, related to the collection of points and directory prizes, comply with only one of the pillars of involvement, namely feedback. Lack of other elements makes it impossible to determine this type of tool as gamification. However, there are loyalty programs which fully use game mechanics. An example might be British medical insurer "Pruhealth" that in its Vitality program assumed that customers should be rewarded for health actions. Each program participant received a plan to improve own health status and points for its implementation. The number of points determined the status, which in turn translated into discounts on various products and subscription services. This is an example of a scenario well matched to the specifics of a company. Customer receives constant feedback on the number of collected points which are associated with health improvement. Also the third element — "friends" was provided by being able to take care of health as well as play for prizes or status and lower subscription for the whole family.

Gamification should include long-term commitment, which distinguishes it from other projects benefiting from game mechanics.

Research objective. The main objective of this article is to identify the current application of gamification and an attempt of anticipating of its further development. Trends of gamification also seem to be interesting. As a research method the analysis of secondary data was adopted and primary research was conducted using a survey.

Literature review. Currently, gamification has its practical application in many business processes. These include, among others (Reda, 2015):
- designing and implementation of effective marketing activities;
- creation of innovative, involving brands and products;
- development of online platforms and communities;
- support for recruitment of new employees;
- optimization of management strategies, motivation and staff development;
- streamlining of operational processes in organizations such as sales or strengthening cooperation and communication among employees.

Thanks to gamification the level of commitment (Stecko, 2013, 2014), emotions and motivation known from games to realize business goals can be used. It is possible to design such experiences for consumers to cause behavioral change with them, and even produce desirable habits connected with a brand, a product, marketing activities or activity in an online community.

Gamification is used as a marketing tool in Internet research (Fisher, 2012; Donato and Link, 2013). There exists research studies that confirm the impacts of gamification on customers, for example (Bittner and Shipper, 2014; Insley and Nunan, 2014).

There are many examples of gamification use in various business processes.

An example of successful adaptation of game mechanisms in business activities is Foursquare (http://business.foursquare.com/). Foursquare (also known as 4SQ) is based on geolocation of an influential social network. The service was launched in 2009 by Dennis Crowley and Naveen Selvadurai. It is designed primarily for users of mobile devices such as smart phones, tablets etc. The mechanisms by which the application has gained 50 mln users has been in existence right from the on-set. Its primary function was enabling check-ins in places like bars, restaurants, pubs or hotels. As a result, customers were able to gain specific privileges. The person, who most frequently checked-in at a destination within a month gained the title of a major. A major was awarded badges and was subsequently rewarded. Lesser frequency of check-ins entitled customers to points as well as less prestigious badges. They were classified into standard, special types for being the bests in a given category and affiliate types from sponsoring firms. In addition to its primary role that translated into prestige among peers, the check-in function offers opportunities for rivalry among checking-in customers, who are freely rewarded. This could be in the form of free coffee, discounts while checking-in at specific times etc.

The research results revealed that users logged in to the application mostly for two reasons. The first motive was social namely, finding friends and informing them about own location, while the second was the desire to explore new places. The company thus, decided to split the application. These changes in Foursquare lead to the increasing role of the discovery of new places, which can be ensured through developments in personalization and in advisory roles. It will no more offer opportunities to check-in at specific locations. The service shall itself determine user's activeness, noting his presence with the help of geolocation. Entrepreneurs, participants in Foursquare reward their customers regularly by creating promotional offers (Zatwarnicka-Madura, 2014).

One can find on the business dedicated website of Foursquare many examples of when participating in Foursquare ended in success (http://business.foursquare.com/). The essence of Foursquare is to develop relationships between customers using tools that attract users to gamification. The data provided point to the significant increase in profits of companies, that participated in the project thus confirming the strength of gamification as a tool influencing customers.

HBO Poland decided to use gamification for the promotion of its program offer in social media. For this purpose a unique Gamfi application was development which allowed the creation of long-term and engaging experience based on fictionalized interaction with content other players. In the HBO Play the user received points e.g. for watching forerunner of the show, liking fan page, finding answers on a profile on Pinterest or making a quiz. In each of the tasks they could be helped by peers, earning additional points. A lot of interesting missions and tasks were developed, and the auctions in applications where users using points gained bid for prizes were held. Although the application functioned in Facebook, the designed activities were linked with other platforms on which HBO has valuable content, including YouTube and

Pinterest. What's more, one of the tasks took the form of urban game and consisted of scanning the QR code with the characters from the TV series "Game of Thrones", for which one could receive discounts or a free audiobook. By obtaining very good results the application of HBO Play won GAwards for the best use of tools to build involvement in media during GSummit in San-Francisco in 2014 and the third prize in the category "Game to promote the channel or television program" in the global competition "PromaxBDA" (Reda, 2015).

T-Mobile (the USA) uses gamification to improve the efficiency of training and building positive customer experience. In order to motivate and engage employees to the best possible customer service, an internal "T-community" platform was applied, where gamification was implemented. The system rewarded customer service staff and employees of the stores every time they deepened their knowledge in dynamically changing offer and the range of services of T-Mobile, they asked and answered the questions of other community members and recommended valuable information. After the system implementation, some positive changes were noticed − thanks to gamification mechanisms the employees were more willing to seek and exchange information, which led to overall improvement of knowledge on the current offer and thus more effective customer service (Reda, 2015).

The developers of a mobile application "Endomondo" decided to create a business based on a fashionable lately healthy lifestyle. They created a community portal bringing together people practicing different sports. The project developed applications on all mobile platforms − their job was to track user's activity. Depending on the field of sport the application can provide much information. For instance, after cycling training one can check the route, average speed, heart rate etc. Gamification mechanisms have been used in this application in order to attract new users and keep the current ones. When analyzing the number of users and popularity of the application, it should be noted that the proposed strategy works quite well, and the system uses all of the following mechanisms:

- points − are used to measure involvement in sport; depending on the activity points can be hours, km etc.;
- badges − "Endomondo" uses quite an original idea of badges: the basic badge is the "number of burnt hamburgers"; then, depending on a discipline, one can meet other badges: e.g. "journey around the world "and" trip to the Moon" (in the disciplines related to distance, such as running, cycling, nordic walking etc.);
- rankings − as "Endomondo" is a sports application, there are a lot of rankings;
- bonuses − 3 ways of rewarding participants.

Gamification elements that have been used in the "Endomondo" system and aesthetic performance of the application raised its appeal as much that it became one of the world's most popular social systems that supported healthy, active lifestyle (http://www.endomondo.com/).

Key results. The market growth of gamification is expected to reach 1,707 bln USD in 2015 and 5,500 bln USD vy 2018. The biggest market is expected to be North America, followed by Europe (Digital games..., 2014).

The research conducted by "Ambient Insight" shows that (Adkins, 2013):
- Game-based global revenue in 2012 was 1,548 mln USD, and with a five year CAGR of 8.3%, this revenue is expected to reach 2,309 mln USD in 2017.

- Simulation-based global revenue in 2012 was 2,364 mln USD, and with a five year CAGR of 23%, this revenue is expected to reach 6,648 mln USD in 2017.

- The total global revenue at the learning games market in 2012 was 3,912 mln USD and with a five year CAGR of 18%, this revenue is expected to reach 8,958 mln USD in 2017.

Based on the findings of the survey conducted by "TalentLMS", 79% of the participants (corporate learners and university students) said they would be more productive and motivated if their learning environment was more like a game (Andriotis, 2014).

Gamification will be the primary mechanism that 40% of Global 1000 organizations will employ to improve their business operations (The Top Gamification..., 2015). It is expected that by 2016 gamification will become an indispensable element in driving B2C marketing and customer loyalty and by 2017 50% of Global 1000 organizations will use gamification for teaching and/or recruitment (Reda, 2015).

The research conducted at the University of Australia shows that the majority of students (80.39%) have not heard of the term "gamification" previously. However, when asked about how they felt about gamification in education, after being given a minimalist explanation of the term ("the addition of game elements to systems or activities that do not normally have any game-like features"), 31.37% of the respondents stated they found it to be an exciting idea, 21.57% stated they would be comfortable with it, and 5.88% would be anxious about it. The remaining respondents selected the "none of the above" option, which is possibly due to the lack of familiarity with gamification and hence a reluctance to select any of the options. Those who know of gamification have mainly read about it on the Internet (including gaming sites). The majority of students (93.75%) have positive expectations of gamification in education. Many believe its use in education will make classes more interesting and improve the learning environment. The most common expectation of gamification is that it increases student interest in class (45%), followed by improvements to the learning environment (33.75%). The most commonly anticipated benefits were improvement in their understanding of the course content (36.27%) and determining own knowledge (23.53%) (Cheong et al., 2014).

Interesting surveys were conducted among users of e-learning platforms (Figure 1).

From the list of e-learning sites and services offering some degree of gamification (from pure e-learning offerings to programming oriented knowledge base StackOverflow and personal training tracker Nike+), half of the respondents were mostly familiar (and have used) Codeacademy and Khan Academy. Of course, that could be explained as a result of selection bias, as we mostly targeted our survey at the existing e-learning users (Androtis, 2014).

From different gamification and engagement techniques, those that were mostly loved by users were progressing to different levels, scores, real time performance feedback and activity feeds, whereas the least loved were virtual currencies, avatars, competition, virtual gifts, and being part of a narrative (the so-called "interactive fiction").

In the research studies conducted by the author of this article 108 full-time students (major — Management, Finance and Accounting) participated. The research

was carried out via a questionnaire survey. Almost half of the respondents (46%) play computer games. However, only 11% of these students met the definition "gamification". Most of them declared they played computer games. After a brief explanation in the questionnaire what gamification was the vast majority (97%), acknowledged there would be more and more activities based on gamification and more and more people would benefit from these activities. Only 9% of the students used the examples listed in the questionnaire with gamification mechanisms. The most frequently cited reasons for using this type of actions were: rivalry, interesting application, entertainment, tracking one's achievements (Figure 3).
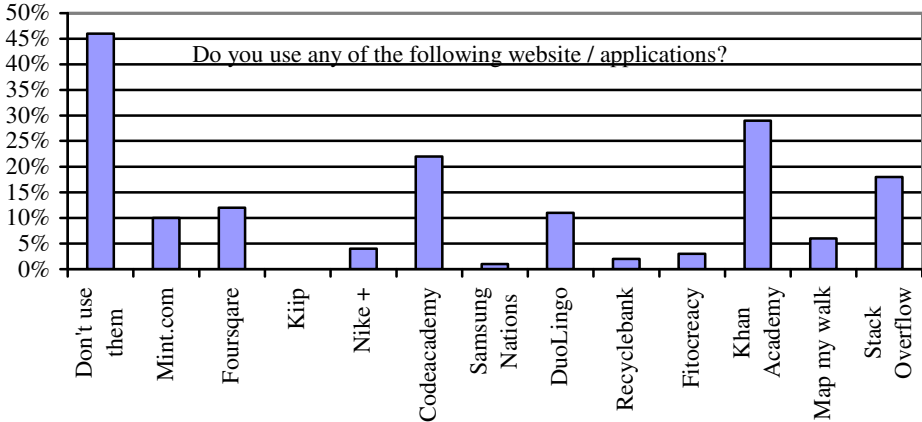

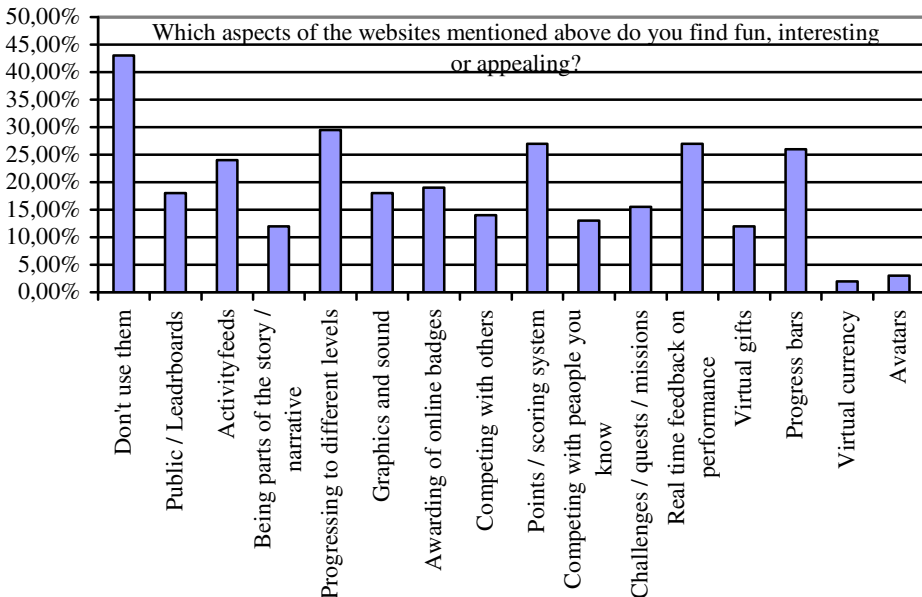*Figure 1.* **Internet sites/applications activity** (Androtis, 2014)

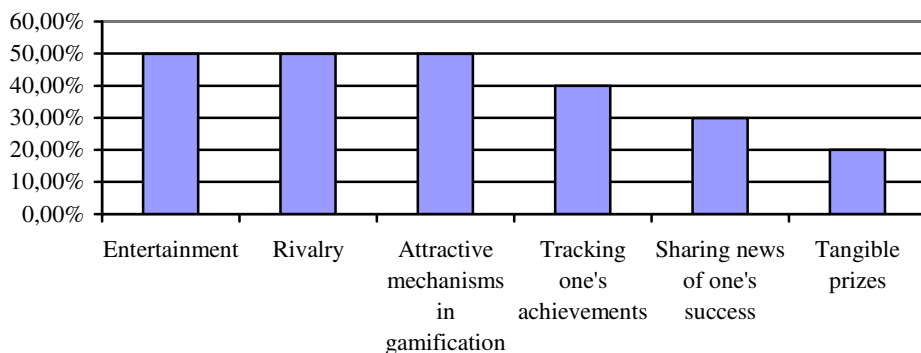*Figure 2.* **The perception of web pages as fun, interesting or appealing**
(Androtis, 2014)

Figure 3. **Most attractive mechanisms in gamification for the respondents,**
own study

Conclusions. Research studies carried out in the world show an increasing interest in gamification. This is confirmed by data on the number of firms using gamification as well as the data on the number of users of such activities. A huge increase in the value of this market, especially in North America and Europe is expected. Non-representative studies conducted in Australia and Poland show that the vast majority of students do not know the concept of gamification. However, after explaining the principles of its operation, the students relate to the idea with optimism The article also showed which elements should be taken into consideration when designing activities based on gamification, which indicates the directions for its further development.

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