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Gamification and games, their potential for application in marketing strategies

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Introduction

The goal of this paper is to present the functioning of one of the latest marketing trends known as gamification, the analysis of games used in gamification systems in terms of their structure and mechanisms, as well as transferring gamification and games to the area of marketing activities.

What is gamification?

Gamification is the application of the structure and mechanics of games (points, rewards, levels, challenges, trophies) to the real world, in order to boost the engagement of users, change their behaviour and solve problems of various kinds.

„Engagement" from the point of view of business is a close connection between the brand and the consumer. When we take into consideration mobile technologies and internet networks, the strength of engagement can be measured by means of the following indicators:

- frequency of appearance,
- frequency of interaction,
- the duration of interaction,
- readiness for propagation,
- assessment[1].

Only by achieving a high level of user engagement can we guarantee adequate growth of income for the company. Just informing and encouraging users to purchase an ever greater number of services or goods has lost its significance.

In the marketing context, the term „loyalty" is used to define engagement. The term means that the users will choose the benefit we provide, instead of reaching for our rival's offer. Applying gamification may help a company gain the upper hand on the market in times when the client has at his or her disposal several similar goods or services in terms of characteristics, price and availability.

When we start thinking about clients as players, we change the approach to the brand itself and start assuming a long, symbiotic cooperation based on pleasure and fun. Every subject area has a potential

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1 G. Zichermann, *Grywalizacja. Mechanika gry na stronach WWW i w aplikacjach mobilnych*, Helion 2012, p. 11.

to become play, thus, it makes no difference which branch a company or institution represents. Whether a game is fun depends not on the motive, but on the mechanics. This is what can capture a player's attention over a long period.

In social media, players can express their loyalty by sharing information, inviting friends, informing them about awards received - thanks to this people start talking about the brand associated with a particular game. This provides an opportunity to stand out from the crowd and become the market leader.

Members of the community services make fans of the brand, which gives a sense of belonging to a group of fans and gives the feeling that they will be heard by representatives of companies and receive answers to their questions[2].

Gamification systems can not merely stimulate the growth of client loyalty and advertise a particular brand. The spectrum of applications may be much broader - from motivating employees to take particular actions to stimulating their creativity, which leads to innovative activity.

„According to Gartner (analytical company dealing with the IT market) by 2015 over 50% of non-governmental organizations managing innovation will gamify this process. It is also expected that by 2012 gamified marketing services will become as popular as Facebook, eBay or Amazon and over 70% of the 2000 biggest global concerns will have at least one application taking advantage of the concept of gamification..." [3].

„Harvard Business Review" placed gamification on the list of trends that not to be ignored in the nearest future. It was called *„one of the most innovative marketing concepts of recent years"* [4].

What is a game?

John Huizing, Dutch historian and anthropologist, the author of „Homo ludens", describes a game as a *„...voluntary activity which we consciously separate from the „normal" world as „less serious" and at the same time absorbing the player in an intensive and complete way. The activity is not associated with any material gain and it cannot be a source of profits. The game is played in the player's own space, both location and time, according to predefined rules and according to a particular order."* [5]

Games are separated from reality in the aspects of time and place. Complex narrative structure supported with physical (and sometimes only virtual) attributes - objects typical of a game, like pawns, chess pieces etc. which are attributed with higher than their real value - are responsible for moving the player into a different reality.

There are three basic types of narration:

- **Telling stories** - - the audience is passive, plays the role of an observer, there is no interaction, this type of narration isn't typical of games.
- **Forming stories** - typical of chess games, the player himself forms the story.

2 W. Świeczak, Inbound Marketing jako forma marketingu internetowego, MINIB, Marketing Instytucji Naukowych i Badawczych, Warszawa 2012, p. 192-193.
3 Definition quoted at www.poligamia.net „Czym jest gamifikacja i skąd ten szum dokoła niej?"
4 P. Tkaczyk, Grywalizacja. Jak zastosować mechanizmy gier w działaniach marketingowych, Helion 2012, p. 149-150.
5 Definition quoted in Ibidem, p. 14

- **Wandering around a story** - typical of the use of social media, MMORPG[6], games, it is enough to enter and immerse yourself in the world, establishing social relations.[7]

Narrative program, according to Jim Banister - the owner and creative director of consulting agency SpectrumDNA, consists of five basic elements. They are the following:

- **Context** – rules, regulations giving a structure to the narration, which at the same time impose limitations.
- **Content** – the thing we can perceive with our senses.
- **Community** – interaction between players.
- **Trade** – exchange of value.
- **Tools, code** – limitations associated with the used technology, engine of the game.[8]

The structure of every game consists of the following elements:

- clearly defined condition of success,
- challenge or goal that a player has to achieve in order to win,
- actions or in other words activities expected from the player,
- obstacles, or difficulties encountered by the player on his way to the goal,
- rules establishing limitations.[9]

Rules created by the narrative layer create a specific order in the game. Breaching the rules results in certain penalties and sanctions against the player. A game is a voluntary activity and thus accepting its rules is the basic condition for the existence of the world of the game. At the same time the player can also be rewarded with certain allowances and benefits, which help him or her bypass certain rules, e.g. purchasing tickets ahead of a whole queue.

Types of players and their motivation

According to Richard Bartle, the author of „Games People Play", professor of the University of Essex, players are motivated by four main factors:

- **Discovering the world of a game** – this is important for those who like to explore a virtual world and learn about the rules governing it.
- **Achievements within a game** – this is important for those who consistently strive to achieve goals set by the game and want to do their best.
- **Establishing contacts with other people** – essential for those who like interpersonal contact, conversations, which can later be transferred to reality.
- **Exerting influence on others** – important for those who like chaos, challenge others to duels, rob and kill others.[10]

6 MMORPG games (Massively multiplayer online role-playing game) – a kind of computer RPG, in which a large number of players can play together in a virtual world. Similarly as in RPG games, the player impersonates a particular character and controls its actions – source: Wikipedia.
7 Ibidem, p. 19-22.
8 Ibidem, p. 18-19.
9 Ibidem, p. 73-74.
10 Ibidem, p. 78.

The above types of behaviour have led Bartle to defining four basic categories of players:

- **Explorers** - they gather experiences and explore the game world; they want to learn as much about it as possible. They are symbolized by the spade - digging into the world in search for knowledge.
- **Achievers** - they collect points, they like games with scoreboards and levels. The most important-thing for them is to carry out the tasks in the game in a manner as close as possible to perfection. They want to be better than others and for them failure usually means loss of interest in the game. They are symbolized by diamonds - amassing wealth.
- **Socialisers** - they gain social experience and for them the game constitutes a start of long-term social interactions. What counts for them are other players; the game itself is just the background for establishing interesting contacts. They are symbolized by hearts - empathy is pleasure. This is the most numerous group of players.
- **Killers** - they want other players to lose, they play in order to gain domination over others. They are symbolized by clubs - having a weapon provides pleasure in the game. This is the least numerous group of players.

Most players display all above types of behaviour simultaneously with one or two dominating types. Designing a game or a gamification system it is necessary to take into consideration the motivation of each type in order to win them over and encourage them to make a greater effort and get more involved.

Picture 1. Types of players, according to Bartle.[11]
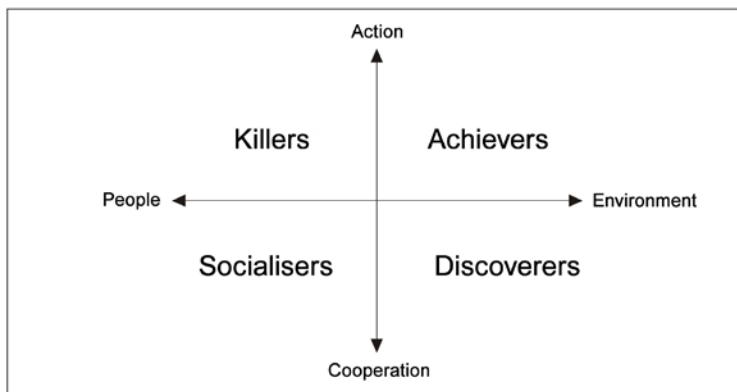
Game mechanisms and dynamics

Mechanics is about the functional elements of a game. Dynamics is about the interaction of the player with the mechanics - building it properly leads to a situation in which the game becomes attractive for players following various motivations. Sometimes these terms can be used in the same meaning.

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11 G. Zichermann, *Grywalizacja. Mechanika gry...*, *op. cit.*, p. 32.

The following are further combinations of dynamics together with appropriate mechanics:
- Points and feedback (rewards),
- Levels (status),
- Scoreboards (competition),
- Trophies (achievements and challenges),
- Instructions (introduction),
- Social engagement loops,
- Adaptation (expressing oneself),
- Presents (altruism).

Points are awarded for desired activities in the game. They indicate the level of progress in the game. Thanks to this the world of the game conditions the player to comply with the world's rules. They also help overcome one's own weaknesses, show progress towards success. This is the favourite type of reward for an achiever.

Feedback is an immediate reaction of the game's environment to the activities of the player. The availability of feedback is an advantage that games have over real life, in which the time of reaction to people's activities is much longer.

Levels create the structure of a game. They motivate players to participate in the game by providing them with the feeling of satisfaction - it appears when the player advances to a higher level. They are an indicator of the status of a player, understood as relative position in comparison to other participants in the game. Status profits allow players to move ahead of others in a defined ranking system. Status gives power and respect among players focused on competition. A well-designed game is one in which the status is always visible.

Scoreboards raise the involvement of players who want to compare themselves with others. They derive greatest satisfaction from the awareness of competition and the possibility to boast about their achievements.

Trophies (achievements and challenges) is a way of informing about completed tasks and progress in exploring the system of a game. Sometimes they can replace levels as indicators of progress in a game. They are supposed to provide „fun" and surprise. This is a mechanism which shows the challenges a particular player faced and what achievements he has. A unique combination of trophies allows a player to express him- or herself. Winning a trophy leads to the release of dopamine into the brain. This hormone is responsible for the feeling of pleasure and is often called the hormone of happiness.

Instruction is a process of introducing newcomers to the system. The first moment when a player gets involved in the system is the most precious moment from the point of view of the game, as it is then that the player decides whether to devote more time to the game. The first minute allows the player to „feel the atmosphere" and learn about the game's manner of operation. The main rules are that newcomers have to remain anonymous and that they don't lose during the introduction, because this could discourage them from continuing the game. Introduction is essential for the creator of the (system) game, because

it allows him to learn something about the player.

In social engagement loops the starting point is a motivating emotion. Thanks to it the player returns to the system, accepts a social challenge to act, which is followed by progress in the game or winning a reward, and this again leads to a motivating emotion. Social engagement loops guarantee a viral effect to systems. Such well-known media as Twitter take advantage of these loops.

Picture 2. Social engagement loop.[12]
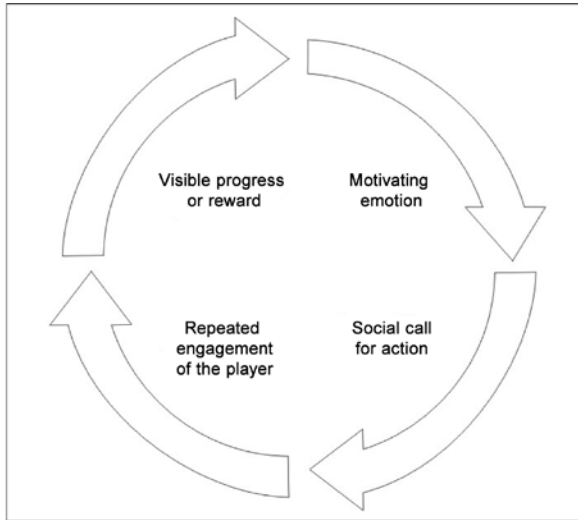
Reward system

Frederic Skinner, professor of psychology at the Harvard University, the creator of radical behaviourism, conducting research on the behaviours of various species as a consequence of interaction with society, proved that a person who expects a reward of a particular value, becomes frustrated when he receives an award of lesser value. This is the so-called behavioural contrast. As Huizing pointed out, participating in a game is fully voluntary for players, thus players may abandon a game if they are not satisfied with the received reward. Thus, it is necessary to be really careful about ending and modification of loyalty programs, because such moves could cause undesirable reactions among current clients. Players who have got used to particular rewards may become aggressive and may display destructive behaviour as soon as they stop getting these rewards.

Rewards given to players can be distributed depending on the time they spent playing, or depending on the scale of effort and engagement in the game.

The key to creating an adequate reward pattern in a gamification system is understanding the functioning of intensifying stimuli. Intensification focuses on defining the way in which the conversion

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12 Ibidem, p. 69.

of the expected reward into the player's actions takes place, depending on the number of rewards and the frequency of rewarding.

If the same reward is given at constant, defined intervals, in the period between successive rewards the player will carry out only the tasks that are necessary to receive the rewards - no more, no less. This is intensification or stimulation at constant interval, which results in only small engagement. In this case it is necessary to reckon with the eventuality that the player's engagement will drop almost to zero following a reward. The period of lack of activity is the longer, the more time a player has to wait to get another reward.

If a player doesn't know what the value of the reward will be or when he will get it, he will be much more engaged in the tasks offered by the game. This kind of modifier can be called intensification of variable schedule, or also operant conditioning. This model is used in gambling machines and in all basic gambling models.

In practice, it is advisable to plan locating a few rewards of this kind in a game, independent of its real context, as they are a very strong factor directing the behaviour of the player.[13]

Appropriately designed games apply a few reward patterns in order to encourage the player to first repeat simple and later ever more complex tasks. The player participates in a game in order to be rewarded, later he gets closer and closer to a state similar to trance, called flow.

Flow

According to Mihaly Csikszentmihaly, the author of the work „*Flow. The psychology of optimum experience*", flow is a mental state which can be described as concentrated motivation. It is achieved by means of full emotional immersion in the experience of the carried-out task, which is characterized by an appropriately high level of difficulty (it is assumed that the skill level of the person participating in the challenge is just as high).

Csikszentmihalyi distinguished ten components of the flow. They are the following:
- clear targets - clear tasks and challenges,
- high concentration,
- the loss of the feeling of self-awareness, thanks to identifying oneself with an avatar,
- disturbed perception of time,
- direct and immediate feedback,
- balance between the level of challenge and skills,
- the feeling of personal control,
- performing an activity itself treated as a reward,
- loss of physiological needs leading to hunger or exhaustion,
- limiting concentration to just the challenge lying ahead of the player.[14]

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13 *Ibidem, p. 30.*
14 *P. Tkaczyk, Grywalizacja. Jak zastosować mechanizmy gier..., op. cit., p. 53-54.*

Leading into the state of flow can be achieved slowly, by ordering players to repeat certain tasks until they fully master them and later raising the level of game's difficulty.

Players who have entered the state of flow experience the feeling of exaltation, the feeling that they are using their potential to the greatest possible extent, the feeling of maximum engagement and satisfaction. This is the state sometimes experienced by sportsmen, creators, managers, employees who achieve a breakthrough in their projects. Every success starts in the state of flow.[15]

Games in marketing

Research and scientific institutions, as with companies, resort to complex marketing strategies in reaction to dynamic changes on the market in order to build and maintain strong brands based on close relations with clients.

One of the four elements of the marketing mix, along with product, distribution and price are promotional activities. Thanks to promotional activities research and scientific institutions provide information about their capacity and strategy for development. They do this by means of various channels of marketing communication - direct contacts with the client, presenting messages by means of the Internet, the media and printed materials.[16]

Another interesting source of information are White Papers. This is a combination of a scientific lecturewith an advertising brochure. The result is a synthetic text written in a comprehensible language bearingcertain promotional traits. It includes, among others the description of products, technologies, business processes. Marketing activity allows the institution to reach out to a wide audience.[17]

The promotional activities used help form a positive image of an institution, popularize its achievements and facilitate cooperation with the business sector, which helps win over new partners and finance the research.

For research and development institutions it is also important that promotional activities give them the chance to disseminate and popularize the knowledge associated with the branch represented by a particular institution, which may contribute to growth of interest in a particular area of knowledge among youth and in turn raise the number of graduates of universities interested in joining an institution's scientific staff. A good example here is the program „Era inżyniera" (ed. „Age of engineers"), which was launched by the Institute of Aviation together with a few dozen partners in 2008. It is targeted at young people from secondary schools and is designed to popularize and boost the prestige of the profession of engineer, which should in turn lead to raising the number of people choosing engineering studies.

Currently, along with changing conditions for the functioning of companies, the very essence of marketing is subject to far-reaching transformation. The start of the 21st century is characterized by „information overload" - this term was first used by Alvin Toefler, sociologist, the author of „Future Shock". Access to

15 J. Gandziarowska-Ziołecka, J. Średnicka, W poszukiwaniu stanu flow, Raport Game Industry Trends 2012, Nowy Marketing 2012, p. 66.
16 J. Matulewicz, Marketing instytucji badawczych i naukowych – celowość i sposoby działania, MINIB. Marketing instytucji naukowych i badawczych, Warszawa 2010, p. 52-53.
17 A. Olejniczak, Reklama – psychologiczne aspekty wpływu marketingowych sztuczek, MINIB. Marketing instytucji naukowych i badawczych, Warszawa 2012, p. 207.

the Internet has led to a situation in which information has turned from a scarce resource into a relatively worthless element of life. People's time is a limited, precious resource and it has become important to spend it in the friendliest and most satisfying manner possible - experiences which can be „collected" have gained great importance.[18]

Over previous decades traditional methods of promoting brands boiled down to providing information about the existence of a product or a service on the market and hoping that the consumer would learn about them, take them into consideration, and in the end make a purchase. Brands were built on the basis of the USP - Unique Selling Proposition. The client would choose a few brands depending on their USP and purchase the one he preferred. Later a particular brand would try to keep the loyalty of clients serving further portions of information concerning various models and promotional campaigns. The very knowledge of a product was enough to make a client purchase it from a particular producer or service provider.[19]

The Engel-Kollat-Blackwell model assumes that the decision on the choice and purchase of a product is a directand logical result of the consumer's transition through five stages of the process starting from creation of consumer's need, through searching and assessment of information concerning the available options, making a decision, the choice of one and the best option, deciding to make a purchase and ending on post-decision assessment. Marketing practice shows that they often make the selection, using a much smaller amount of information than would be desired in a given moment[20].

Currently, considering the flood of information, customers have started defending themselves against traditional advertising, which involves providing successive portions of data. They spend more and more time in the social media asking their friends about their experiences and preferences. The power of recommendations given by friends has become much greater than the power of access to information from a producer or service provider. Interaction is very important and people no longer gain preferences in the traditional, linear way. More and more, clients have started favouring the experiences which provide an opportunity to become immersed in the world of a brand (as in the world of a game). They have started paying not for the USP, but for the time spent with a brand. Clients have stopped following information, thus brands should offer them experiences and associated memories. The traditional advertising model, where the producer was at the same time the source of the message and the client was a passive recipient, is fading away.[21]

The company significantly improve marketing communications and will enable customers to share experiences actively using social media, but also the leading blogs and microblogs, which is consistent with the principles of Inbound Marketing.[22]

18. P. Tkaczyk, *Grywalizacja. Jak zastosować mechanizmy gier...*, *op. cit.*, p. 136.
19 Ibidem, p. 137-138.
20 A. Olejniczak, *Reklama – psychologiczne aspekty...*, *op. cit.* p. 214.
21 Ibidem, p. 139-140.
22 W. Świeczak, *Inbound Marketing...*, *op. cit.*, p. 187-188.

The application of advergames in contacts with clients can provide them with unique experiences, which they are looking for. Advergames can inform about the existence of the brand of an institution, help create its positive image. They can allow the recipients to get in touch with the brand over a long period, through the Internet and other platforms such as mobile phones, CD and DVD discs. Games of this kind also make it possible to build a database of potential clients and can constitute an important element in competitions.

With the use of games it is possible to attract fans in the social media, collect players' e-mail addresses, they allow education and even integration of members of a group or branch. Games can utilize the following mechanisms: recommendation of a game, publication of results and the opportunity to compare results. However, the most important element is always the game itself and the experienced pleasure, advertising comes second[23].

Taking into consideration the above deliberations, it seems reasonable that research and scientific institutions, noticing changes in the essence of marketing and following changes on the market, should use the potential given by the application of advergames in brand promotion.

We can offer a potential client not only a brochure or a leaflet, but also the immersion in an expe- rience by giving him a game associated with the subject of the research or a particular research achievement, or designed technology.

It is also necessary to remember about marketing functioning within an institution itself. Games can be successfully used in the course of integration meetings because they help build social connections and as we know „we tend to like people who play games with us[24].

Jesse Schell, a lecturer at Carnegie Mellon University, the author of „The Art Of Game Design: A Book Of Lenses" defined game as „solving a problem which we regard as play[25]. Business games are a useful element in employee training, offering the opportunity to solve complex problems in the form of play and efficiently motivating to learn and improve skills.

Gamification in marketing

We could go a step further and apply gamification and transfer mechanisms and solutions from games to clients' daily lives in such a way that the target group become more engaged and motivated to take particular actions, which in effect will result in loyalty and attachment to the brand represented by a particular institution.

Gamification can facilitate communication between an institution's brand and the recipient. If we adapt the motivating factors appropriate for each type of player to the dynamics of the gamification system, we can lead to boosting their engagement.

In order to implement gamification systems in relation marketing, we need to select the situation we would like to transform into a game. The situation should correspond to the essence of a particular brand

23 J. Jankowski, *Rozwój advergames i gier w marketingu, Raport Game Industry Trends 2012, Nowy Marketing 2012, p. 45.*
24 P. Tkaczyk, *Grywalizacja. Jak zastosować mechanizmy gier..., op. cit., p. 124.*
25 *Ibidem, p. 127.*

and the lifestyle of clients. A good starting point for designing a gamification system is using particular rituals, daily habits which the clients may associate with a particular brand.

In „The Ritual Masters" published by the BBDO agency in 2007, rituals are divided into the following categories:

- **Preparation for battle** – facing the challenges of daily life, after leaving home,
- **Feasting** – eating a meal together, celebrating meals, often after the hardships of daily life or standing up to a challenge,
- **Beautification** – care for health, looks and fitness,
- **Return to encampment** – the customer's return home, to the office following a stormy meeting, then relaxation replaces stress,
- **Protection against the future** – making sure that you are safe ahead of going to sleep[26].

The gamification system associated with a brand should correlate with the client's lifestyle, which according to Ray Oldenburg, an American sociologist, revolves around three main centres: home, work and the „third place". The third place means „home far away from home" – it is important from the social point of view. It could be a theatre, cafe, or restaurant; it is often purely virtual, like a message board or an online game.[27]

The last and the most difficult stage of gamification is creating a coherent and comprehensive experience. This means both preparing a coherent plot layer and working out the names for procedures and parts of the gamification system. The plot, combined with the mechanics of the game, gives purpose to the player's activities and make it possible to keep his attention by offering new, but attainable targets. Players in the state of flow derive pleasure from constantly perfecting their skills - successive tasks are not boring and frustrating thanks to the level of difficulty.

The following three pillars can guarantee success (this is where the sociologists' term 3F generation came from):

- **Fun** – pleasure, satisfaction,
- **Friends** - the opportunity to play within a community, group, making new contacts, cooperation, competition,
- **Feedback** - receiving quick feedback concerning the actions taken by a player.[28]

Whole communities can be built around brands. A good example of this is fan-pages on Facebook. Communities built on the basis of gamification create an environment in which clients contact each other and the brand constitutes a background evoking nice connotations. Under such circumstances, subtle messages and suggestions directed to recipients are received and absorbed better. Such a gamification system gets players involved for a long time, gives them the satisfaction from progress in the game and the struggle for status.

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26 *Ibidem, p. 142-143.*
27 *Ibidem, p. 144-146.*
28 *S. Starzyński, Gryfikacja, modny trend używany przez marketerów, Raport Game Industry Trends 2012, Nowy Marketing 2012, p. 46-47.*

Gamification takes advantage of the players' internal motivators, at the same time regular contests, represented by loyalty programs, which involve winning prizes and trophies, are based on external motivators - people participate in them to win the prizes and not to have fun. In gamification systems prizes are an additional element intensifying engagement.

Gamification can be adapted to the individual needs of a consumer, but it is also possible to form social attitudes, promote a healthy lifestyle and popularize education because it can influence the players' behaviour in their daily life.

Marcin Niewęgłowski in Raport Game Industry Friends[29] gives several examples of such applications. The mobile application TrashOut designed by Slovaks was created in order to locate illegal garbage dumps. For providing such information users get rewards, which are higher if a particular piece of information is followed by additional action - for example organizing a cleaning team. An application called Goalpost is targeted at smokers willing to quit smoking. The program offers successive goals, achieving these goals is rewarded, all of this takes place in combination with support of friends from the social media.

Gabe Zichermann and Christopher Cunningham described Nike Plus application as an example of the utilization of a gamification system. Nike recognized the purchasing of its brand products as a secondary target and focused on the popularization of running. The application is a complex pedometer with a stopwatch, which offers a series of challenges to the runner. Thanks to them the runner can compete with himself and with other runners. Runners are encouraged to connect to Facebook and inform others about their results on their own scoreboards. When the runner starts running, the application sends information to his friends and asks them for support. Every time when a friend from a social network clicks the „like" button, the application plays a „hurray" sound to indicate support. Such a social loop boosts theplayer's motivation and his resolve to continue using the exercise program.[30]

The utilization of gamification systems has broad potential which can be used in the marketing activities of research and scientific institutions. It is the idea that counts - if it is successfully implemented, it can make it possible to promote a brand, drawing a very broad group of players-customers into the ga- mification system, address them and give them something more than just the offer and plain information. Thanks to the adaptation of gamification, we can show the clients how significant they are, that their disposition is important. We can give them fun, pleasure - thanks to this they will fall in love with the brand and attach themselves to it for a longer time. At the same time, it can also be used to change their behaviours and social attitude.

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29 M. Niewęgłowski, Gamification: na zdrowie dla społeczeństwa i lepszej pracy, Raport Game Industry Trends 2012, Nowy Marketing 2012, p. 68-69.
30 G. Zichermann, C. Cunningham, Grywalizacja. Mechanika gry na stronach WWW i w aplikacjach mobilnych, Helion 2012, p. 94-95.

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