

## Gamification as a new form of social communication

### Gamification — the objective and applications

Communication is a social process which aims at exchanging thoughts, sharing knowledge, information and ideas. Communication as a social process in various theoretical contexts is defined as an organism's reaction to a stimulus, a transmission of information, ideas, emotions; an answer using verbal symbol; creation of common notions, opinions and beliefs. Changes to information technologies are accompanied by changes to methods of communication and applications of modern tools. Dynamics of changes in the traditional and electronic market have brought changes to social communication, in particular in generation Y. One of the new social and business communication tools is represented by gamification which is a contemporary variation of games in the age of internet development and social media. At present, mechanisms of gamification are applied in business, education, marketing and human resources among others.

Game-based mechanisms are nothing new in the society — people have always competed with each other, spent free time together by taking part in team games. Technological changes have modified a structure and a place of games — the society has forsaken board and “playground” games to take up computer games. Then, computer games have evolved — people feel the need of affiliation, the exchange of information with a group — into online games where the community and the exchange of messages with other players have laid foundation.

Development of Web 2.0 and social media have contributed to a dynamic change in play. Playing has not only become a way of spending free time but also a way of “being together” on-line, presenting oneself to other players by means of scores and rankings. Changes have been noticed not only by internet users but also by enterprises and non-profit organizations which has resulted in designing games by enterprises and organizations aiming to involve consumers in the brand

and persuade them to act in a just cause. Thus gamification has appeared which has been defined as a conscious and deliberate application of mechanisms and techniques used in designing games to enhance commitment, loyalty, to modify behaviour and human habits. Its essence is applying the mechanisms of games and a way of thinking specific for games and getting people involved. The basic mechanisms that gamification is based on are as follows<sup>1</sup>:

- a) a tendency to raise status in a community;
- b) competition;
- c) meeting subsequent achievable challenges (levels of difficulty, progress bands, rankings);
- d) a sense of community and possibilities of contacting people of similar needs and interests;
- e) possibilities of expressing one's views (fora, mails, chats or an exchange of virtual objects or points as well as collection interest).

Gamification management consists in the following stages (Figure 1).

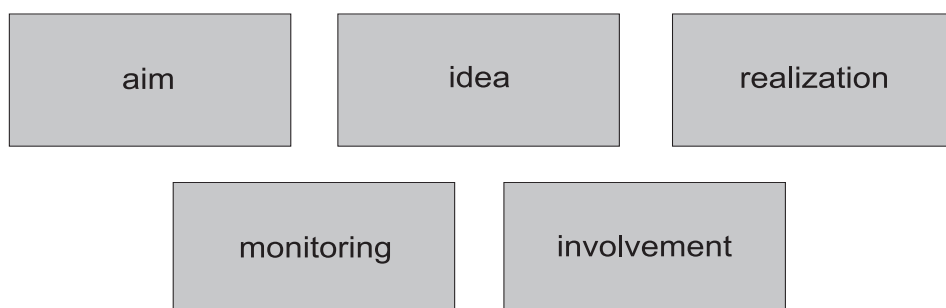


Figure 1. Stages of gamification designing

Source: own elaboration.

Gamification's prerogative is to direct activities of players at a specific aim which is consistent with expectations of the project author and bringing them into undertaking relevant activities even if the recipient considers them unattractive. The goal set in gamification activities should be strictly related to building recipients' involvement. Apart from setting a goal, a major challenge is to find an interesting, engaging idea for a game. There are numerous classifications of gamification, however the most interesting ones are presented by R. Cailliois and The National Institute for Play. According to R. Cailliois,<sup>2</sup> games can be divided into:

<sup>1</sup> G. Zichermann, Ch. Cunningham, *Grywalizacja. Mechanika gry na stronach WWW i w aplikacjach mobilnych*, Gliwice 2012, p. 35 ff.

<sup>2</sup> K. Salen, E. Zimmerman, *The Game Design Reader*, [http://nideffer.net/classes/270-08/week\\_01\\_intro/Cailliois.pdf](http://nideffer.net/classes/270-08/week_01_intro/Cailliois.pdf) (access: 10.10.2013).

- agon — games aiming to determine a winner;
- alea — coincidence and blind chance based games; at the beginning players have identical chances to win; skills do not mean here anything as fortune prevails;
- mimicry — games consisting in role playing, pretending, impersonating; great importance is attached to having a feel for the role;
- ilinx — games based on trance-related emotions, intoxication and adrenaline control.

The National Institute for Play<sup>3</sup> has suggested a different division:

- attunement — games which result in establishing relations;
- body — games where children find out how their bodies function and how they impact the environment;
- object — playing with objects;
- social — games involving other players;
- imaginative — games involving writing scenarios role playing;
- narrative — games involving story-telling, reporting events, listening to audio-books;
- transformative — games involving making use of imagination to transform something into something else.

Having carried out the research on the internet,<sup>4</sup> we can say that contemporary gamification activities comprise games based on competition (mainly in human resources), social aspects (marketing in particular), mimicking (mainly in pro-social organizations).

An important aspect in gamification management is performed by mechanics of games constituted by a set of conduct principles of a player. The mechanism of play consists of basic tools that include:

- a) tasks which are challenges;
- b) definitions which are principles;
- c) levels, stages, games;
- d) achievements and distinctions;
- e) points and prizes;
- f) commitment loops;
- g) other motivators and emotion carriers.

Having been properly balanced, the mere mechanics of games and other interaction elements sustain the recipient's engagement as he encounters new achievable challenges all the time.<sup>5</sup> The creators of gamification determine the state when the user derives pleasure from improvement as the "flow."<sup>6</sup> Both the earlier stages

<sup>3</sup> The National Institute for Play, <http://www.nifplay.org/> (access: 10.10.2013).

<sup>4</sup> A. Dejnaka, *Gamification in the light of netnographic*. Studies conducted in May/June 2013.

<sup>5</sup> G. Zichermann, Ch. Cunningham, op. cit., p. 60 ff.

<sup>6</sup> The National Institute for Play, <http://www.nifplay.org/> (access: 10.10.2013).

as well as mere implementation and monitoring of gamification aim to enhance participants' involvement. According to Grywalizacja24.pl website, the intensity of this relation is constituted by the strength of involvement also called the level of involvement intensity.<sup>7</sup> In business relations the level of involvement (intensity) changes depending on various external factors such as attractiveness/interest in a product as such — when the product exhaustedly meets consumer needs or external factors such as competition — a much lower price of alternative products offered in the market. According to this website, the main indicators of involvement include:

- frequency;
- duration;
- dissemination;
- evaluation.

The occurrence of all these factors simultaneously denotes involvement at a particular level. The importance of individual factors depends on the type of job/activity. It particularly refers to the first two indicators. There are activities where the frequency of contacts or actions shall indicate greater involvement and there are activities where duration is of greater importance to define the level of involvement.

The analysis of successful projects based on gamification has proven that players' involvement is best built on three indicators:

- a) satisfaction — taking pleasure;
- b) community — playing in the community, inviting acquaintances, meeting new people, cooperation or competition. Satisfying the human need of establishing and maintaining relations with other people and the sense of belonging are the key to success of social games as well as projects based on crowdsourcing.
- c) feedback — constant gathering of information about participants, rankings, etc.

At present, the mechanisms of gamifications are applied in business, education, marketing and human resources.

Geolocation and “check-in” are related to gamification through mobile devices. Foursquare application is the best example of applying geolocation. This application in fact is a social networking website which due to a mini-game (“checking-in” in location by means of a phone in order to collect points/badges) creates a database of users and service points. It currently has 25,000,000 registered users and by 2017 a three-fold growth in the number of users has been predicted. Despite the fact that Foursquare is the most recognised application using geolocation, the

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<sup>7</sup> Grywalizacja 24: [www.grywalizacja24.pl](http://www.grywalizacja24.pl) (access: 10.10.2013).

dynamics of 25 million users within two years may be considered slow in the market of novelties. For example, Instagram in the comparable period had 80 million users. It is worth noticing that not many users are registered in Poland (according to *Geolokalizacja w Polsce 2012* report there are about 20,000 users which makes this application little effective). Sharing one's location has been adapted by Google and Facebook. According to the survey of Polish users of geolocation services carried out by IRCenter i SoInteractive in 2012, the main reason for using geolocation tools by Poles is curiosity and the need to stay in touch with friends.<sup>8</sup> About 26.7% of Poles use geolocation services because they want their friends to know where they are; 21.4% do it because their friends do; 12.2% can compete and play with acquaintances thanks to geolocation; 8.4% look for friends. Only 32.1% of respondents search for offers of stores and service providers; 15.3% want to find discounts and compare stores and service providers. In Poland: Warsaw Old Town, Warsaw Airport and Wrocław Market Square constitute 48.8% of all "check-ins." Geolocation is mostly used by US residents and local service providers and sales people see its potential and offer a lot of favourable discounts for "checking-in" customers.

Gamification as a communication tool according to 2013–2014 forecasts is considered a developing tool and it is more often used in various areas of community activity. According to Garner's report,<sup>9</sup> presenting the development of new technologies, gamification is a development activity which is dynamically changing. According to the report *Gamification Market: Worldwide Market Forecasts and Analysis (2013–2018)*, the value of the gamification market will increase from USD 421.3 million in 2013 to 5.5 billion in 2018.<sup>10</sup> In a year the majority of the biggest companies is to use application utilising game mechanisms to enhance commitment and loyalty. However, the survey carried out by Gigya<sup>11</sup> on the basis of monitoring billions of activities of website users has shown that enriching the website with gamification mechanisms results in the growth of users' involvement (e.g. posting comments or making them accessible) by 29%. Gamification increases comments posting by 13%, sharing on Facebook or Twitter by 22%, and further content checking by 68%. Pepsi, Nike and Dell were partners in the survey.

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<sup>8</sup> *Social Media 2012, Internet Standard*, p. 51.

<sup>9</sup> Garner's report, <http://www.gartner.com/technology/research/predicts/> (access: 10.10.2013).

<sup>10</sup> Report *Gamification Market: Worldwide Market Forecasts and Analysis (2013–2018)*, <http://www.marketsandmarkets.com/Market-Reports/gamification-market-991.html> (access: 10.10.2013).

<sup>11</sup> Gigya's report, <http://www.gigya.com/social-analytics/> (access: 10.10.2013).

# Application areas of gamification in communication

Gamification mechanisms may be applied in a lot of activities of the society. They most often appear in four areas (marketing, education, HR, pro-social activities) — presented in Figure 2.

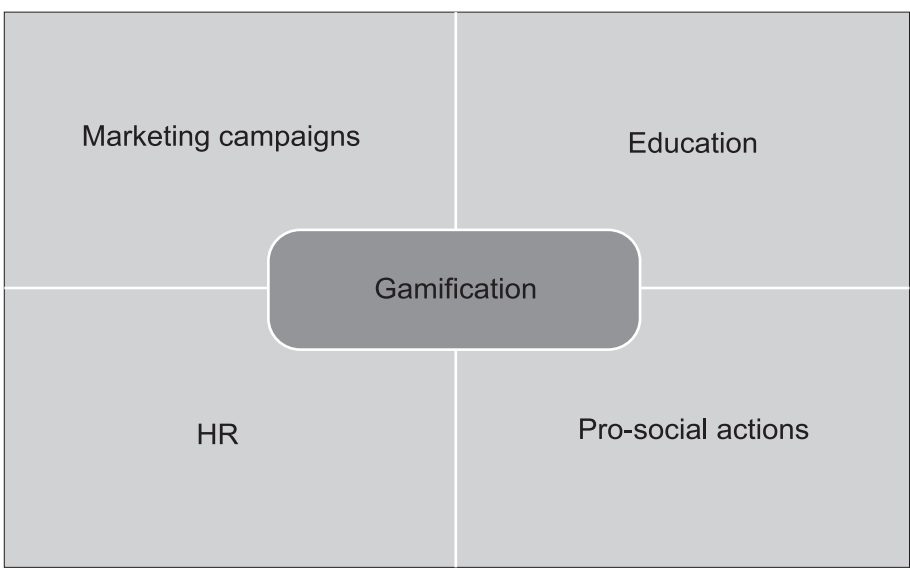


Figure 2. Selected areas of gamification application  
Source: own elaboration.

Applying gamification in education is of experimental nature. The mere implementation of a game changes the way of teaching and learning process. Instead of reading about a particular process, one may become its participant, experience it and learn from information and decision mistakes. The entire gamification trend in education is based on the assumption that games influence human psyche in the way that they allow a human being to acquire new information, understand the operation of a complex processes or develop system, strategic and logical thinking. In Table 1 two examples of gamification in education have been presented.

Table 1. Selected applications of gamification in education

Name of gamification/aim	Effect
1. Billboard — gamification of reading Aim: Promoting reading among young people	Effect: enhancing interest in reading among the target group by 70%, numerous viral activities on the internet
2. Zamzee — gamification of obesity Aim: Counteracting obesity among children	Effect: Zamzee has improved physical activity of players by almost 60%

Source: elaboration on the basis of <https://www.zamzee.com/> and <http://grywalizacja24.pl/billboard-grywalizacja-czytelnictwa/> (access: 12.10.2013).

Billboard — gamification of reading consisting in putting four editions of *Billboard Brasil*<sup>12</sup> in Fan Check Machines in selected most popular urban locations. They were prepared for music fans who apart from possessing comprehensive playlists on their mp3s and smartphones also read traditional press. The Fan Check Machine provided each fan of a cover band with an edition of *Billboard Brasil* free of charge. The machine was equipped with a cable connecting the player's iPhone and if there were more than 20 songs from the artist's cover on the iPhone the Fan Check Machine displayed a humorous comment (for example "Congratulations! You have more Joss Stone's songs than her mother") and distributed a free edition of *Billboard Brasil*.

Zamzee has been created with a view to educate children and the youth and make them take up sports and other forms of physical activity.<sup>13</sup> This is achieved by equipping the website with gamification mechanisms based on social elements. Thanks to such programmes children get up from their couches and exercise. The participants receive devices measuring the time spent on the activity as well as the effort made. The data can be sent to an online personal account where the statistics of progress are generated, badges are awarded and moreover, there is a possibility of comparing oneself to friends. The points scored can be exchanged into prizes.

Human resources management is another area for gamification activities. Gamification gets employees involved in a particular process. This gives a possibility of directly following employees' behaviour, their learning process, which makes it possible to react instantly to a problem and implement desired modifications. Both positive and negative stimuli can be applied to direct work of an employee. Google may be an example here — gamification of budget savings. A dispersed structure of Google (numerous branches and offices all over the world) results in the fact that travel expenses account for a substantial percentage of costs of running operations. For the purposes of making savings, the company has decided to resort to gamification which was accepted with understanding and enthusiasm by its employees. A budget was established for a potential business trip and on this basis travel allowances were assigned to each position. All employees taking part in the programme were informed about it and encouraged to seek more cost-effective connections and accommodation. Each employee could decide how much of the travel allowance he or she was to spend. Information about savings made is put on the player's account. The information is used for two purposes. First, a ranking of savings leader is created. Each person who saves a certain amount of money can choose a way of spending it. The programme involved about 90% of employees going on business trips. Employees also got involved in a savings programme and supported it by searching possibilities of reducing travel expenses.

<sup>12</sup> Billboard, <http://grywalizacja24.pl/billboard-grywalizacja-czytelnictwa/> (access: 12.10.2013).

<sup>13</sup> Zamzee, <https://www.zamzee.com/> (access 13.10.2013).

Marketing is the third area of gamification. The usage of games and their mechanisms is not new. The first attempts were already made in the 1970s. McDonald's and Procter & Gamble most often resorted to it by putting advertising billboards or their products in the existing games. Gamification in marketing activities integrates consumer with the advertisement and builds a brand by customised systems of scoring and awarding. Constant development of social media has contributed to game development and the usage of game-based mechanisms for changing users' behaviour in other environment. Table 2 presents two examples of gamification in marketing.

Table 2. Selected applications of gamification in marketing

Name of gamification	Effect
Coca-Cola Personal Road Aim: Customisation of the advertising message	Effect: Improving sales and commitment to the brand
Lipton Ice-Tea Mometer Aim: commitment to the brand	Effect: enhancement of brand recognisability and commitment

Source: elaboration on the basis of <http://www.youtube.com/watch?v=hiRQWhbw27k> and <http://www.creativeguerrillamarketing.com/guerrilla-marketing/liptons-tea-mometer-a-thermo-activated-vending-machine/> (access: 12.10.2013).

Instead of standard posters the Coca-Cola Personal Road<sup>14</sup> installs in the city red, horizontal displays showing the name of a person who was passing the "control" stage. For these purposes a smartphone application that could be uploaded from a popular store was used. Having filled in a form and thanks to possibilities of geolocation the name could be displayed on Personal Road signs.

Lipton Ice-Tea Mometer was based on the installation of electronic machines in the city. Having approached the machine, thirsty people were familiarised with clear instructions.<sup>15</sup> Players whose body temperature was measured by putting their palms on the device which indicated that the temperature of their bodies required cooling down received a can straight away. Those who did not meet the "requirements" were informed about the necessity of trying again.

The higher the temperature of the body, the more cans were distributed by the machine. Additionally, cans enabled quick cooling down (having a drink, placing them near the body) and sharing them with other people.

Gamification in activities of pro-social organizations is related to indicating social issues and attempting to change human behaviour. By getting involved the player may win awards for regular monitoring their lifestyle, has

<sup>14</sup> Coca-Cola, Personal Road, <http://www.youtube.com/watch?v=hiRQWhbw27k> (access: 12.10.2013).

<sup>15</sup> Lipton Ice-Tea Mometer, <http://www.creativeguerrillamarketing.com/guerrilla-marketing/liptons-tea-mometer-a-thermo-activated-vending-machine/> (access: 12.10.2013).



a possibility of finding out about dependencies between illnesses, lifestyle and food. These activities are reflected in the project called *Gamification supporting the chronic pain therapy* initiated in April 2013 by Children's National Medical Center in Washington.<sup>16</sup> Specially designed video games based on Kinect Microsoft technology are to be integrated into the therapy. Children take these games to "inter-galactic" world and thanks to that the patients can improve their health not knowing that they are being treated. The games collect data on: the range in which the patient can move, pulse, monitoring breath. All the data is to provide information about the pain it is not notified by the patient. If the patient decides to be "brave" and endure prolonged suffering and continue exercising, the pulse and the breath measurements will provide information about the discomfort.

Miles for Meals<sup>17</sup> is another example of gamification. While jogging, the user, who installed a Die Tafeln application in the smartphone, chooses the method of calculating calories. The user can apply an internal counter or Nike+ popular system. While jogging, the runner can read on the smartphone screen the number of burnt calories which are automatically translated into meals. The meal is not the meal that the runner is trying to burn but the meal that could be eaten by a person in need thanks to the runner's involvement. Each meal in Miles for Meals has been "estimated" at 500 calories.

All gamification activities require not only technologies but also a skilful design of the communication system between the provider and the recipient. Some gamification projects have been unsuccessful due to their one-way communication system without the strategy of maintaining the interaction and encouraging the recipient to act.

## Conclusion

Modern communication tools determine the way information is exchanged between members of the community. Regardless of development of communication tools, the communication method is more vital being a social process rather than a sophisticated technology. Gamification projects that are innovative and inspire curiosity in generation Y will become commonplace in a few years. The future of applying gamification in the social communication is dependent not only on development of technologies but also on development of new ideas related to communication systems and interaction between a company, an organization and a recipient.

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<sup>16</sup> Children's National Medical Center, <http://grywalizacja24.pl/grywalizacja-jako-wsparcie-terapii-przewleklego-bolu-u-dzieci/> (access: 12.10.2013).

<sup>17</sup> Miles for Meals, <http://milesformeals5k.org/> (access: 12.10.2013).

## Bibliography

- Billboard, <http://grywalizacja24.pl/billboard-grywalizacja-czytelnictwa/> (access: 12.10.2013).
- Children's National Medical Center, <http://grywalizacja24.pl/grywalizacja-jako-wsparcie-terapii-przewleklego-bolu-u-dzieci/> (access: 12.10.2013).
- Coca-Cola, Personal Road, <http://www.youtube.com/watch?v=hiRQWhbw27k> (access: 12.10.2013).
- Dejnaka A., *Grywalizacja w świetle badań netograficznych*, Badania netograficzne oparte były na analizie 74 grywalizacji. Badanie zostało przeprowadzone w okresie czerwiec/lipiec 2013 roku.A.?
- Gigya's report, <http://www.gigya.com/social-analytics/> (access: 10.10.2013).
- Grywalizacja 24, [www.grywalizacja24.pl](http://www.grywalizacja24.pl) (access: 10.10.2013).
- Lipton Ice-Tea Mometer, <http://www.creativeguerrillamarketing.com/guerrilla-marketing/liptons-tea-mometer-a-thermo-activated-vending-machine/> (access: 12.10.2013).
- Miles for Meals, <http://milesformeals5k.org/> (access: 12.10.2013).
- The National Institute for Play, <http://www.nifplay.org/> (access: 10.10.2013).
- Report Garnera, <http://www.gartner.com/technology/research/predicts/> (access: 10.10.2013).
- Report *Gamification Market: Worldwide Market Forecasts and Analysis (2013–2018)*, <http://www.marketsandmarkets.com/Market-Reports/gamification-market-991.html> (access: 10.10.2013).
- Salen K., Zimmerman E., *The Game Design Reader*, [http://nideffer.net/classes/270-08/week\\_01\\_intro/Caillois.pdf](http://nideffer.net/classes/270-08/week_01_intro/Caillois.pdf) (access: 10.10.2013).
- Social Media 2012, Internet Standard*, <http://www.internetstandard.pl/socialmedia2012> (access: 10.10.2012), p. 51.
- Zamzee, <https://www.zamzee.com/> (access: 13.10.2013).
- Zichermann G., Cunningham Ch., *Grywalizacja. Mechanika gry na stronach WWW i w aplikacjach mobilnych*, Gliwice 2012.

## Gamification as a new form of social communication

### Summary

Gamification consists in a conscious and deliberate application of mechanisms and techniques used in designing games to enhance commitment, loyalty, modify behaviour and human customs. Gamification may be utilized to support specific solutions to real issues by means of changing mind-sets, moods or by making processes objective. Gamification assumes directing participants' activities towards a particular goal consistent with expectations of the project author and bringing them into undertaking relevant activities, even if they are considered to be mundane or routine.

The paper is to indicate various types of gamification and their applications to marketing and business activities. It presents examples of applying selected forms of gamification in diverse social communication activities.