Play as a Modelling System – a Semiotic Analysis of the Overreaching Prestige of Games

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Abstract: This paper aims at using the tools of semiotic analysis and semiotics of play in order to re-organise and specify the terminology surrounding the concept of gamification. In the first part, we propose an overview on the different theories and ideologies surrounding the topic, and we will underline the strengths and contradictions of the different approaches. In the second part we will propose a semiotic approach to the topic, drawing from Lotman's semiotics of culture, in order to redefine more precisely the different actions and metaphors related to the implementation of game and play mechanics in ordinary life contexts.

Keywords: Semiotics, modelling systems, gamification, playfication, metaphor.

1. Gamification: Theories and Ideologies

In this paper we will propose a semiotic reading of the concepts of "gamification" and "playfication", trying to deconstruct the rhetorics that are behind the coinage of these expressions, and to shed some light on the meaning-processes that subsume them. In order to do so, we will adopt the perspective of semiotics of culture, elaborated by Juri Lotman within the Tartu-Moskow Semiotic school (see also Thibault 2016b).

From the point of view of semiotics of culture, play can be defined as a modelling system (Lotman 2011). Lotman uses this term to indicate languages in a broad sense: natural languages (as Russian, French etc.) are primary modelling systems, while other languages such as poetry, painting, street signals, cinema and, of course, play, are secondary modelling systems system (Lotman 1974; 1990). The key feature of modelling systems lies in the twofold nature of the word "model", which indicates at the same time a replica of something and its archetype. Modelling systems, hence, are languages capable of describing reality (model-replica), but, at the same time, they also influence its perception and conceptualisation (model-archetype). Not all modelling systems have the same ability to describe or influence reality: they have different "modelling abilities". If cinema, for example, is able to describe extensively our reality and to influence our forms of life, miniature painting has a very limited modelling ability: it describes only some very specific aspects of reality and it is enjoyed by a rather small group of people. The modelling ability of a language is in no way correlated with its factual importance in human societies – the programming languages on which the society of information is based upon are unknown to most – but it is related to the perception of its cultural importance. This concept may be particularly useful, in our argumentation, because we will engage how and why the modelling ability of play has nowadays reached unprecedented levels.

Nowadays the unprecedented prestige of games is not limited to academia (which has consecrated them as a respectable area of study) but it extends to many fields. Blogs dedicated to gaming are becoming mainstream (let's think at Kotaku or at Rock, Paper, Shotgun) and also traditional newspapers often feature columns dedicated to digital games. Despite the fact that "video games" are not always regarded kindly – there is a *fatwa* against Pokémon Go (Niantic, 2016) and there is still occasional blame on games in the aftermath of every teenage mass shooting – the apocalyptic (Eco 1964) approach to play seems to be fading.

Symptomatic of this fact is the phenomenon of gamification, which is the implementation of game mechanics and dynamics to non-playful activities. The term "gamification" originated in the digital media industry in 2008, become a buzzword in the 2010s, while the interest around it peaked in 2012-2013. The supporters of this sort of operations claim that gamified activities are able to engage participants in new ways and to motivate them to do tasks that they are not so eager to undertake – in

semiotic terms, games can be used to make activities more *seductive* (see Barthes 1975, but also Idone Cassone & Viola 2016).

The areas in which gamification has probably been used the most are education and learning, were game mechanics are supposed to recall the students' passion for digital games and to spur them to study with more dedication. Manuals such as Salen (2007) and Kapp (2012) propose methods, strategies and instructions for teachers that want to implement gamification to their teaching activities and are becoming increasingly popular.

Business too has immediately seen the potential of gamification, and studies on the topic have immediately followed. Books such as Werbach and Hunter (2012) and Viola (2011), in the attempt to systematize the different ways games can be used to improve business activities, proceed to quasi-academic analysis of the structure, components, mechanics and dynamics of games that, although somewhat shallow, can still be quite insightful.

These passionate approaches to gamification, nevertheless, have often faced criticism. Gamification experts themselves have, with time, rejected some of the mainstream theories and techniques that were popular at the very beginning – such as the centrality of the "Points, Badges, Leader-boards" trinity and the reductionist idea of a "dopamine loop" – and even started to question the morality of using addictive game mechanics. In response of these growing negative connotations, several designers started to use different terms to describe their activities, such as "gameful design" or "design for playful interactions".

For example, game designer Jane McGonigall, who focuses on how play can be used to promote health and social change, claimed that "we don't need no stinkin' badges" (the title of her presentation at the Game Developers Conference of 2011). In her book *Reality is broken* (McGonigall 2011), the author claims that, in a world that is more and more populated by "gamers", games shouldn't be designed simply for escapist entertainment, but should aim at improving the quality of life of the players. To this aim, McGonigall applies the principles of gamification to unusual fields such as post-illness and post-trauma recovery in her project "Superbetter". Similar initiatives have also been undertaken by the Games for Health movement that promotes a series of conferences and since 2012 has its homonymous, academic journal.

Nevertheless, the efficacy of these methods is still debated: a recent study (Hamari, Koivisto & Sarsa 2014) points out that much of gamification's positive effects are greatly dependent on the context in which the method is implemented, as well as on the final users themselves. In other words, gamification appears to have a much more restricted efficacy that many of its proponent are willing to accept.

Other criticisms are moved also from ideological standpoints, for example opposing the idea that games should be used for non-playful purposes. In an amusing and witty article a group of game scholars counter-attack the "games for health" paradigm with its contrary: a "games against health" movement that ironically promotes a game design that ruins the players' health.

The games against health movement embraces player preference as a critical part of player agency, arguing that we may more readily achieve a wholesome game culture by responding to what is enjoyed by players rather than what is prescribed by well-meaning HCI researchers who take the position of benevolent emancipators come to correct the players. The GAH movement therefore rejects the antagonistic and incongruous use of games to improve health, and promotes an alignment with a more organic function of games as they have come to be accepted and understood by the players: as potentially sociopathic health-destroying technologies (Linehan, Harrer, Kirman, Lawson & Carter 2015: 590).

The first serious attempt to map and analyse the phenomenon of gamification was proposed in (Deterding, Kahled, Nacke & Dixon 2011), when the use of the term was still confused and unclear. The authors propose the definition of what we shall call a "gamification *strictu sensu*": "Gamification is the use of game design elements in non-game contexts." (Ibid.: 2). This definition excludes the implementation of playful elements that are not "characteristic of games" (a definition that also the authors define as in need of more debate) and therefore substantially different from "playful design", "playful interactions" and "design for playfulness". Nevertheless, the authors recognise that, in

practice, gamified application will often give rise to playful behaviours and mindsets. Furthermore, underlining the fact that it only encompasses elements of games, this definition also draws a border between gamification and serious games – full games with educative purposes.

Other definitions of gamification, however, can be less strict, let's think at the works of the Gamification Lab of Lüneburg University, well summarized in (Fuchs, Fizek, Ruffino, and Schrape 2014). This second approach describes a more playful idea of gamification, that aims at distancing games from mere measurements by focusing more closely on the necessity of a playful mindset in order to play games (see also Fuchs 2012).

Finally, there is a third conceptualisation of gamification, the broadest one, which is still pervasive, even if difficultly identifiable with one single author. It is the trend of considering as gamified every interactive system that makes large use of metrics or infographics, such as the rating system of eBay and some of LinkedIn's features. This inclination of gamification towards a generalisation that deprives the term of meaning is still quite widespread, despite the fact that many advocates of gamification have tried to counteract it – e.g. Werbach's last rule of gamification "don't forget the fun" (Werbach and Hunter, 2012) which urges gamificators to remember that they are not simply designing rule-systems.

A reaction to the more rule-oriented applications of gamification has also been the introduction of the competitor term "playification", which originated from researches on "meaningful gamification" (such as Nicholson 2012 and 2013) – which focused more on experiences than on scores – and on "meaningful play" (Scott 2012) – play activities designed to have specific educational objectives. Playification is still a rather blurred and unknown concept, broadly suggesting that play can be exploited for promoting social change, and stressing the importance of fun, freedom and sociality. Due to the difficulty in describing what is, or not, playful, however, many playified systems end up encompassing areas that are only tangentially playful – if playful at all – such as "sexual arousing", "sharing emotional feelings" or "being part of a larger structure" (examples taken from the PLEX cards ideated by Andrès Lucero; see Lucero and Arrasvuori 2010).

Despite the fact that gamification does not automatically involve playification (Mosca 2012), the latter seems to rely heavily on its assumptions. Apart from the stress on the "emotional" nature of games, its theorists still connote play as something inherently *meaningless*, that should be harnessed and transformed in "meaningful play" by designers in order to "trick" the end users and make them do things that they normally wouldn't. In order to distinguish themselves from the most playful forms of gamification, then, the proponents of the term "playification" use play as a universal metaphor, in virtue of its prestige, while applying several design strategies that not always involve play.

2. A Semiotic Take

For now, semiotics has dealt only marginally with gamification: the works on the subject are rather few, often hesitant and still in a development phase (see d'Afflon 2012; Idone Cassone & Viola 2016; and Thibault 2016a). We will, nevertheless, try to shed some light on the different rhetorics involved in the conceptualisations of "gamification" and "playification" proposed above, connecting them with the idea of modelling ability and filtering them through the metalanguage of a semiotic theory of play.

First of all, the differences between the rhetorics listed above appear particularly meaningful. While they are all based on the attempt of studying and exploiting the grown modelling ability of play, the ways in which they outline the meaningful features of play that should be imitated are very different.

The approach based on gamification *strictu sensu* adopts an idea of games that is very common also in game studies: a formalist approach that sees in the existence of a system of rules regulating the effort to reach an unnecessary goal as all is needed to have a game. This approach is particularly counterproductive if applied to gamification. The latter is an attempt to recreate some features of games but aiming at a real life objective: in this way the only specific element that differentiates games – the objective – would disappear and gamifying would simply mean to implement a system of rules. This approach to gamification, therefore, would end up proposing rulebooks and computer programs that imitate digital games without having any playful feature in common with them.

Nevertheless, the proponents themselves recognise that the gamified application would involve also the use of a *playful mindset* anyway, partially denying the distinction between play and games that they drew themselves, in order to protect the peculiarity of games.

The definition of the term "gamification" by (Deterding, Kahled, Nacke & Dixon 2011), on the contrary, is very effective and probably the sharpest and the most scientific one. It individuates two of the main characteristics of the phenomenon. On the one hand, the reason of its success as a buzzword, which is based on the influence of the idea of "game" (more prestigious than that of "play", which is still surrounded by some stigma) and on its connections with the digital – another modelling system at the centre of our *semiosphere* (Lotman 2009). On the other hand, its main weakness: the currently exceedingly narrow focus on the rules, which risks transforming gamification in a dry process of regulation and grammaticalisation.

The rhetoric of playification, therefore, has indeed more potential, as it recognises that the compelling and immersive nature of games is not determined by the numeric value of a score – or by the difficulty to obtain it – but by the challenge originated by the resemantisation and refunctionalisation of reality proposed by play. Nevertheless, the lack of a solid definition of play weakens greatly this approach, that oscillates between being an inflated version of gamification and indicating a very vague set of experiences and activities. This reveals the reactionary nature of this rhetoric, but it does not erase the importance of its main assumption: that playfulness can indeed be used to act on every-day life and change it.

The idea of a "playful gamification" proposed by Fuchs, is in between the two previous approaches. Despite the fact that it does not clearly separate the two processes – creating a system of rules and encouraging a playful behaviour (Lotman 2011) – this approach has the virtue of focusing on how acts of design can effectively use games and play to attain their objectives. If mere gamification gives birth to dull systems of rules and pure playification is uncontrollable (as it would not direct in any way the action of the players) the mix of the two can indeed be used to guide users to a predetermined path in a playful and apparently free way.

Last but not least, the broader rhetoric of gamification – which considers any interactive form of measurement and tracking as being "gameful" – ceases to be prescriptive and becomes merely descriptive. In other words, it is not any more an attempt to design activities that contain game elements or involve a playful behaviour, but it is the tendency to see game elements in measurement devices and systems of tracking with good graphics that have, in fact, nothing to do with games or play. This endeavour, however, is particularly revealing of the hight modelling ability that games has reached, as it is symptomatic of a will to label as games also things that are not – a dynamic that Lotman describes in depth in his theory of the semiosphere (Lotman 2009).

After this brief analysis, we can, therefore, propose our own definition of these different terms. As the different terminologies have often been used aiming at the promotion of design methodologies or activities, we should try to reframe them starting, not from the words, but from the things that they describe. We can distinguish, then, between three activities:

-The use of game-like systems of rules in order to add value and engagement to a non-playful activity. We shall call this activity "gamification" and it reflects the modelling ability of games, which overshadows that of play.

-A resemantisation of ordinary life activities or objects disconnected from any use-value, in ordinary life contexts. We will name this activity "playification" and, in its pure form, it encompasses phenomena like parkour (which resemantise the urban space in an obstacle course, but still with the objective of crossing the city see Thibault 2016) or trolling (which resemantise serious online conversations in pranks).

-The use of play and/or games as a metaphor capable of describing several aspects of human life and society that are not, in principle, playful. This is using play as a *metalanguage*, and is based on the replicating feature of its modelling ability. In other words, their efficaciousness as a tool for describing the world is perceived so strongly that there are attempts to transform it in a universal metaphor, capable of describing every aspect of existence.

Many of the projects and activities generically labelled as "gamification" are, in fact, a mixture of these three actions aiming at guiding the users through constraints, motivate them with resemantisation, and using the contemporary prestige of games as an added value for their efficacy.

Our redefinition of the terms has, first of all a descriptive goal. We have tried to make some clarity on a still confused area and to differentiate the metaphorical use of the term (due to a ludicisation of culture that makes it particularly effective) and the different operations that can be deployed in order to increase the seductive power of an activity: the use of game-like systems of rules (gamification) and the exploitation of the vertigo of play (playfication). Such clarity, we believe, can be helpful both for the study of these phenomena and for the creation of gamified or playified activities.

References

D'Afflon, A. (2012). Sur l'échelle de la ludicité. Création et *gamification. Hermes 62,* 41-47

Barthes, R. (1975). *The pleasure of the text.* Seuil.

Deterding S., Kahled R., Nacke L. E. & D. Dixon (2011). Gamification: Toward a Definition. *CHI 2011*, May 712, 2011, Vancouver, BC, Canada.

Eco, U. (1964). *Apocalittici e integrati.* Bompiani.

Fuchs, M. (2012). Ludic interfaces. Driver and product of gamification. *GAME Journal* 1 [Online] Available at: http://www.gamejournal.it/ludic-interfaces-driver-and-product-of-gamification/ Last accessed: 08/12/2016

Fuchs, M., Fizek, S., Ruffino, P., & Schrape, N. (eds.)(2014). Rethinking gamification. Meson Press.

Hamari, J., Koivisto, J., & H. Sarsa (2014). Does gamification work? a literature review of empirical studies on gamification. In *47th Hawaii International Conference on System Sciences* (pp. 3025-3034).

Idone Cassone, V. & F. Viola (2016). Playable City. In M. Thibault (ed.) *Gamification Urbana: Letture e Riscritture ludiche degli spazi cittadini.*

Kapp, K. M. (2012). *The gamification of learning and instruction: game-based methods and strategies for training and education*. John Wiley & Sons.

Linehan, C., Harrer, S., Kirman, B., Lawson, S., & M. Carter (2015). Games against health: a player-centered design philosophy, in *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems* (589-600) ACM.

Lotman, J. M. (1974). Primary and secondary communication-modelling systems. In *Materials of the All Union Symposium on Secondary Modelling Systems* vol. 1, no. 5 (pp. 224–228).

Lotman, J. M. (1990). *Universe of the Mind, a Semiotic Theory of Culture*. I.B. Tauris & Co.

Lotman, J. M. (2009)[2004]. *Culture and Explosion*. Mouton de Gruyter.

Lotman, J. M. (2011)[1967]. The place of art among other modelling systems. *Sign Systems Studies 39*(2/4), 251–270.

Lucero A. & J. Arrasvuori (2010). "LEX Cards: a source of inspiration when designing for playfulness" in *Proceedings of the 3rd International Conference on Fun and Games*, (pp. 28-37).

McGonigall, J. (2011). *Reality Is Broken: Why Games Make Us Better and How They Can Change the World.* Penguin Books.

Mosca, I. (2012). +10! Gamification and deGamification- *GAME Journal* [Online] Available at: http://www.gamejournal.it/plus10_gamification-and-degamification/ Last accessed 09/12/2016

Nicholson, S. (2012). Strategies for meaningful gamification: Concepts behind transformative play and participatory museums. Presented at Meaningful Play2012. Lansing, Michigan. [Online] Available at: http://scottnicholson.com/pubs/meaningfulstrategies.pdf Last accessed 09/12/2016

Nicholson, S. (2013). Exploring Gamification Techniques for Classroom Management. Paper presented at Games+Learning+Society 9.0, Madison WI. [Online] Available at: http://scottnicholson.com/pubs/gamificationtechniquesclassroom.pdf Last accessed 09/12/2016

Salen, K. (2007). *The Ecology of Games: Connecting Youth, Games, and Learning.* MIT press.

Scott, A. (2012). Meaningful play, How play is changing the future of our health. *IDSA education symposium Boston.*

Thibault, M. (ed.) (2016a). *Gamification Urbana: Letture e Riscritture ludiche degli spazi cittadini.* Aracne.

Thibault, M, (2016b). Lotman and play: For a theory of playfulness based on semiotics of culture. *Sign Systems Studies 44*(3), 295-325.

Viola, F. (2011). *Gamification. I videogiochi nella vita quotidiana.* Arduino Viola editore.

Werbach K. & D. Hunter (2012). *For the win, How Game Thinking Can Revolutionize Your Business.* Wharton Digital Press.