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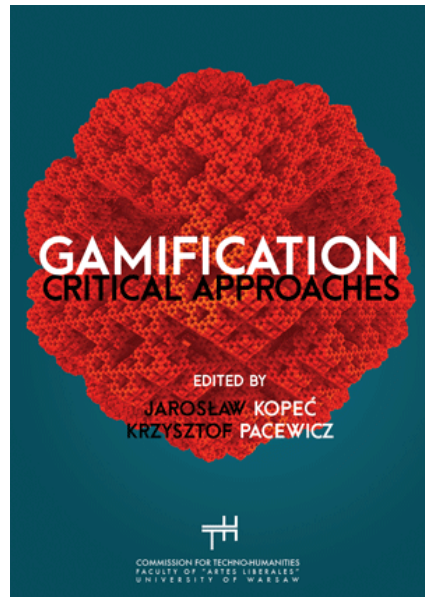
*Gamification. Critical Approaches*

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# GAMIFICATION AS CREATION OF A SOCIAL SYSTEM

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Michał Smoleń

The growing popularity of gamification techniques in marketing, user engagement and workforce management makes it important to broaden our understanding of this issue. I argue that instead of simply adding a fun factor to boring activities, gamification creates a new, highly controllable social system. By using game metaphors and mechanics, a designer can influence the behaviour of a subject, but also make him or her easier to supervise and more prone to being used as part of big data. She can initiate competition between some players and silence other potential conflicts. This social system creation resembles the establishment of markets as spheres of economic activity, researched by economic sociologists. Nonetheless, gamification forms a system particularly suited to the designer's interests, granting her full control over institutions and rules, which makes consideration of underlying power inequalities especially crucial.

One of the most popular introductions to the field, *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps* by Gabe Zichermann and Christopher Cunningham (2012), defines gamification as “the process of game-thinking and game mechanics to engage users and solve problems” (pp. XIV) – generally in non-game contexts, such as marketing, workforce management, education, health and so on. But while this description, supported by a couple of established case studies of famous applications, would usually allow the user to distinguish between gamification and “regular” game or other social practices, deeper consideration leads to a number of important questions. For example, is gamification a recent phenomenon, originating around the time of the emergence of the term in 2000, and boosted by the particularly game-loving Generation Y (Bunchball, 2012), or has it been around since antiquity, always present as a playful element of education and upbringing: rhetorical debates,

sport or war games? What makes the problem even more complicated, game-centric approaches in cultural anthropology, stemming from *Homo Ludens* (Huizinga, 1995), put game and play at the core of development of culture, making the term “non-game activities” itself problematic. On the other hand, Kai Huotari and Juho Hamari (2012) point out that it is hard to find any elements and mechanics that could be considered as truly “unique to games” (p. 18).

I will not, of course, offer an easy solution to this terminological problem. And it is surely not a problem unique to “gamification” – other general names of social activities, such as “theatre”, “politics” or “sport”, would be at least as hard to define. My idea is thus to approach gamification from a different perspective – as a current social practice, gaining importance from 2010-2011, heavily influenced by the establishment of the internet as a dominant medium and video games as a mainstream hobby, and most commonly found in the fields of on-line business. Questions like “what is pure gamification?” will be replaced by “what social meaning does it have as it is?”. I am going to examine the surrounding discourse: how do gamification gurus advocate this technique and how do they conceptualise it, what do they promise and what is desired by businesses. This last element is crucial, because all different applications of gamification, in areas such as education, marketing, and employee engagement, are used by companies – on their clients or workforce. Gamification could thus become an important topic in economic sociology: the way in which it adds a new layer of meanings and elements, and transforms existing relations between subjects, according to video or board game-like mechanics, is surely worthy of consideration. These observations would in turn improve our understanding of different gamification effects, which should not be reduced to the simple introduction of an addictive “fun factor” into normally boring or tiresome activities.

My method, which involves case studies and elements of discourse analysis, makes this paper more of a preliminary conceptual paper than a definitive statement – such a statement would only be possible after numerous empirical, quantitative and mixed methods studies. I will thus be unable to provide the answer to crucial question: “Does gamification do what its proponents says it does?”. In a recent literature review, Hamari, Koivisto and Sarsa (2014) write that available studies generally support such claims to some degree, although gamification’s effectiveness is highly dependent on the context and the users. On the other hand, the number of complex empirical research papers on gamification is relatively low, and scholars notice important shortcomings in most of them. These problems make formal meta-analysis, which would serve as a strong basis for judgment of the effectiveness of gamification, impossible for them to conduct. In addition, such a study of, for example, enhanced user engagement, would probably not grasp all the different workings of gamification.

## Reality and games

My main points about the effects of gamification practices, conceived of as the creation of a new social system within the existing world, may be demonstrated using the case of Jane McGonigal's *SuperBetter*, described in her influential book *Reality is broken* (2011, p. 133-142), in which she argues that positive emotions and practices from video games should be reintegrated into the "real" world. While *SuperBetter* is now available on mobile devices as a general life-management tool, it started in 2009 after a minor accident left McGonigal with lasting post-concussion syndrome. After the first month of slower than expected recovery, she decided to gamify the experience and develop a sort of alternative reality game. I chose this case because the narrative provided by author helps me to understand all the different workings of the gamification process, and because it cannot be easily reduced to the most common explanation of simply "making boring tasks fun" by manipulating dopamine levels through game-like elements.

McGonigal started by formulating a strategy for getting better: setting goals, focusing on progress, getting support from close ones, and keeping track of symptoms to know if you are ready to make the next step. She created a fun superhero identity (Buffy the Vampire Slayer) and came up with different missions (such as "gather allies", "find the bad guys" or "identify power ups") – and, of course, this self-imposed narrative has the potential to improve the quality of an injured person's life, especially of one as fond of games as McGonigal. But I would like to point out to several other important factors.

Let us start with the notion that a game is usually a system with a finite and fixed number of elements. The classic board game *Settlers of Catan* has five different types of resources, while the real time strategy video game *StarCraft* has two. Furthermore, these resources are easily countable and comparable. A game usually provides clear concepts of ally and opponent, and conditions of victory and defeat, and standardises activities (in the acclaimed board game *7 Wonders* a player can choose and build one of his cards, discard it for a little money or use it to expand his wonder – these are the only three available options every turn). By contrast, "reality" tends to be much more complicated, with lots of grey spots between different categories, problems with defining goals and procedures, and a generally high level of uncertainty. That was the case for McGonigal in her first month – she was not sure what she was allowed to do with her injured brain, her relationship with those close to her became a bit strained (she used to be self-reliant, and now she was embarrassed to ask for much-needed help), and her normal goals, like writing a book, were replaced by the murky concept of "getting better". But games are easier! By gamifying the experience, she transformed a highly complex and unusual situation into something easier to grasp and much more familiar, which in turn gave her clear goals and ways to accomplish them.

One could say that replacing multifaceted reality with simple narrative is one of the oldest tricks in the book of human nature – and I cannot really argue with that statement. But three important distinctions must be made. Firstly, it is worth noting that this narrative is consciously based on pop culture and video games, so it is probably not the same as old customs of, for example, religious interpretation of phenomena (without comparing their merits). Secondly, gamification is generally a tool of action and change, so it differs from the popular notion of ideology (Mannheim, 1936). Thirdly, and, in my view, most importantly, we should not think of this new, *gamified* system as “false” as opposed to the “reality” behind it (Althusser, 1971). Gamification and similar practices do not just cover reality with a new layer of useful meanings and interpretations. They can profoundly influence the actions of the subjects. Let us consider McGonigal’s sister: after the accident, she continued to catch up with her sibling every weekend, as usual. After agreeing to become a part of Jane McGonigal’s game as a superhero ally, she played her role by calling every day to ask about problems and progresses.

When the introduction of gamification is truly accepted by other people, it really makes “reality” a bit more like a game – fun, but also with an easier set of rules and clearer goals. What may seem unremarkable but is especially important in the context of business applications is that gamification makes different things countable and comparable. Loss of actual or perceived complexity and depth is compensated for by the growing usefulness of quantitative data: both to the big company, which needs to know about user engagement, and to the individual person. For example, in the first month of her recovery, McGonigal was faced with a murky spectrum of different tasks, with unclear relative importance and difficulty. By approaching them as missions in the life management superhero game *SuperBetter*, she could formulate clear rules (“one mission a day”), which made progress easier both to achieve and to keep track of.

One could of course argue that such practices (making reality simpler and countable) have themselves a long history: we may recall Simmel’s findings described more than a century ago in *The Philosophy of Money* (2011) or more current trends in higher education management in the European Union, in which every course is awarded points and has its rules, prerequisites and results described in a standardised way. There have surely been other cultural practices like gamification, which interpreted and at the same time transformed the social world, but that does not mean this present phenomenon lacks its own unique qualities altogether (like its use of video games as a source of metaphors and mechanics, its consciously utilitarian approach and its addressing of hedonistic motivations).

## Gaming business

Although *SuperBetter*'s design history is quite informative and the game represents an important group of self-help gamification systems (like *HabitRPG*), we have to consider the fact that usually the “player” is not the one to design the rules and even set goals for himself. And while McGonigal's book promotes introducing games into our everyday lives for the benefit of society as a whole, some of the other gamification evangelists present a more competitive approach. *Gamification by Design* clearly states that, as in the casino, “the house always wins”. Gamification is seen as a powerful tool for transforming the market, and the fundamental choice is: “be the house, or get played” (Cunningham and Zichermann, 2012, p. 13). So now I will consider some of the business applications of this technology, as described in *White Paper* (Bunchball, 2012), and try to show some different effects of gamification.

The first application to be discussed is Microsoft Ribbon Hero ([ribbonhero.com](http://ribbonhero.com)), a free software, which is a learning tool for Microsoft Office programs. Turning education into a game, and thus making it easier and much more enjoyable, is deemed important, because it is thought that a skilled user base will be more likely to appreciate all the different functions of Microsoft software (which are not included in simpler, free programs). Ribbon Hero follows the classic path of gamified education: it includes clear long- and short-term goal setting, an easy to track progress meter (points), and emotional rewards (narrative, levels and badges). And while it is hard to deem a fun learning tool sinister, Ribbon Hero provides an interesting example of the game within which subjects' transformation occurs according to the needs of the game designer. Gamification discourse often references general truths about people: the inherent human appreciation of games (supported by neuroscience) or great cultural trends such as the appreciation for games within Generation Y. But at the same time, every gamification application to some degree changes both preexisting social structures and the subjects (now players). Ribbon Hero's goal is thus to produce future users and customers of Microsoft software.

Now let us consider the Contributor Recognition Program, built into the SAP Community Network (<http://scn.sap.com/welcome>) and its gigantic forum with thousands of posts every day. In a smaller community, judgment of a contributor's merit can be left to “spontaneous” social processes of recognition, fame and prestige. Other big online communication platforms, like general discussion forums or comment sections on pop culture sites, do not really need recognition of authority: essentially, everyone's point of view is deemed equally valid. On the other hand, a user of a professional online forum needs to be sure that the answer to her question is given by someone possessing actual expertise in the field. This is where the Contributor Recognition Program takes off – it tracks every answer, gives points and levels, and even includes a competitive element (SAP employees represent their companies), which serves as im-

portant motivational factor. In this case, gamification can be seen as the establishment of a new social system with the help of game metaphors and mechanics, which can deal with the problems that “normal” social interactions cannot. It is clear, transparent, and easier to manage (by, for example, tweaking points awarded for different tasks) and use (the individual member does not need to check tens of posts to estimate another contributor’s credibility). And while it is not hard to find sources of new problems, like earning points only on simple questions, gamification promises the possibility of a quick response. “Traditional” social institutions or corporate cultures may be extremely hard to change, with contradictory interests of different stakeholders, pathological habits and so on. The designer of a gamified system just needs to change the “artificial”, formal rules of the game. Although close empirical studies would probably show diverse strategies of resistance even in the best gamification applications (Dragona, 2014), this promise of creating an easier to manage, controllable large-scale social system based on game mechanics is surely an important factor in the spread of gamification techniques.

The next case to be considered is Nitro for Salesforce (<http://www.bunchball.com/products/nitro-salesforce>), which serves as a tool for managing a sales workforce. It provides a unified system for data gathering, real-time feedback about every new closed deal, clear goal setting options, additional rewards (badges and prestige) and both individual and team competition. It could be thus analysed through the lenses of sociology of organisations and work. Although management has always included centralised standards and procedures, as well as different methods of surveillance and motivation, each workplace remains the site of constant struggle between different groups of interests. For example, while a company and its board of directors want to boost employee performance by rewarding the best ones, workers may notice that those who are working too hard or too effectively could lead to a general raise in requirements – thus, a silent solidarity of not overperforming could become part of the organisational culture, leading to at least short-term profit for employees and loss of effectiveness for the company (Burawoy, 1979). A gamified management system tries to counter such “negative” tendencies, not by engaging in tiresome negotiations and looking for a mutually beneficial solution, but by creating a new social system, with subjects-employees redefined as players in a highly competitive game, and simpler rules overruling old, localised nets of contacts and interests, which stood behind traditional reward mechanisms, such as appreciation bonuses. From the social point of view, sales employees share common group interests against higher-level management: transforming their job into a game, in which the performance of, and consequent rewards given to, other workers and teams may be observed in real time, encourages them to compete among themselves. Moreover, it comes as no surprise that there is no “Nitro for CEOs” (with points awarded for long-term company development, fruitful cooperation with trade unions or relatively lower wages of board of directors): the designer of the system

decides who and what becomes part of the game, and who remains outside, as the sovereign power behind the rules. And just as in the casino, the house always wins – at least that is what Bunchball, the company behind Nitro for Salesforce, promises to their corporate clients.

Further examples may help us better understand the relation between two important trends: *big data* and gamification. While employees subjected to systems like Nitro from the beginning could not have kept data about their work to themselves (gamification merely made it easier to manage), when it comes to customers and users, gamification can serve as powerful tool for data mining. Games and competitions on social media or applications like Nike+ are able to attract many users, who without a second thought give away information about their connections with other people, favourite locations, websites, hobbies and so on. These large-scale and multisource data clusters may be used in marketing (personalised ads and offers), brand management, new products design processes and so on. On the most basic level, users are subjected to uneven, unregulated and often unknowing exchange: a little bit of gaming fun for their engagement and private data. But we should not stop there. As I mentioned before, not only is deep gamification the process of manipulating preexisting elements, but it tries to transform them, as part of a video game-like system. In this case, gamification both gathers the data and creates social situations that are countable, easy to evaluate quickly and clearly, and belong to finite set of categories – generally speaking, this is good data to begin with (Paharia 2013). Before Nike+ (<http://www.nikeplus.com.br>), casual runners seldom kept very precise track of their routine exercises: there simply was not much data to be collected, no matter how clever the gathering mechanism. Twenty years ago nobody would have thought to count their acquaintances: certainly, the concept of popularity and a developed social network existed, but they were not commonly thought of as measurable with simple numbers. With online social network services, such numbers started to gain meaning as an unofficial sign of status and popularity, quite like a score in a game – and while such behaviour is today frowned upon by adult users, the game of “who has the most friends?” contributed to the overall deepening of user networks and thus produced data that simply was not there before. Gamification and *big data* can thus overlap and reinforce each other’s power: the common notion that customer and user behaviour is complex enough to prevent effective harnessing of *big data* could lose its merit when a social system is made simpler by gamification. On the other hand, this information bank could itself be a great asset when creating more engaging, more personalised games.



## Social creation of the markets

Critical consideration of new social phenomena has to be conducted with caution – it is easy to make an erroneous “appeal to nature” and treat them as “artificial”, and therefore false, wrong and worse than the natural state before them. I have myself argued that gamification is the creation of a new type of social system and pointed to several associated threats. But at the same time, we have to remember that the market as an arena of economic activity was always a social construct. In this light, we can try to better understand gamification against broader social practices, and ask some new interesting questions about it.

In the introduction to the book *Do Economists Make Markets?: On the Performativity of Economics*, MacKenzie, Muniesa and Siu (2007) explain their basic premise by highlighting the active role of economic theory: as they write, it “is not just about knowing the world, accurately or not. It is also about producing it” (p. 2). They recall Austin’s theory of performatives and point to the current usage of the term in both philosophy of language and sociology. This performative view of knowledge (which influences the world it supposedly describes) is reflected in modern sociology of science – and economic theories are especially prone to such analysis (Callon, 1998). At the same time, it does not mean that they all should be discarded as “false” – they should be seen as tools, created by different people and groups in different circumstances, to resolve local problems. Such an approach should not be reduced to a simple “ideological” refutation (with grand narratives about moral wrongdoings of capitalism or neoliberalism) or limited to the study of academic discourses. Later in the book, Garcia-Parpet (2007) brilliantly describes the establishment of a “perfect” strawberry auction in a small French village. While it resembled the ideal market from neoclassical economic treatises (fluid, transparent, free, and so on), it was in fact not a spontaneous order, achieved by competition and a general tendency to lower transaction costs, but the brainchild of a young educated advisor, who transformed the old, ineffective system, in accordance with his formal economic knowledge, but needed to gather popular support, take the growers for a trip to more prosperous regions, and introduce fruit quality standards. Economic theory was thus more of a social recipe than an accurate description of a preexisting market – and to some extent it is always inherently intertwined with social action and power structures.

To better understand this last factor, we can turn to Foucault’s (2008) historical analysis of liberalism and neoliberalism. On the very basic level, while in classical liberal thought the ruler’s paradoxical role is to acknowledge the limits of his control and respect the natural flow of goods and people within the market, in the twentieth century economists and policy makers realized that the free market itself must be constructed, that effective competition is not at all a natural state of affairs, and that subjects must be brought up in a specific culture and institutional background, in order to be truly “free”. The argument is of course much more com-

plex and given in the context of biopolitics. But what is important to my analysis of gamification is that epistemic structures, which through their performative nature form institutions, create “free” subjects, set rules of cooperation and competition, are never innocent – because they themselves are a product of power (Schrape, 2014). In the context of economy, it means that behind every market victory, there is an underlying struggle to define the players and basic rules of engagement.

If the (neo-)liberal market itself is a social institution, gamification cannot be seen as particularly “artificial” or “false”. But there are still other important questions, which could lead to deeper comprehension and critique of gamification practices.

What kind of subjects are brought to life by gamification? What traits are, at the same time, presupposed and created? To answer these questions we have to note multiple epistemic traditions, which although they are not equivalent, meld together into the popular gamification discourse: neuroscience, positive psychology, cultural anthropology and current cultural studies. Some of these treat fondness of games as an inherent part of the human brain or culture, while others point to the relative popularity of video games in recent decades. In my opinion, cases of gamification show that they are generally more indebted to modern board and video game mechanics than just to general playful human behaviour. Regardless, subjects of gamification are described (Cunningham and Zichermann, 2012, pp. 1-34) as driven by intrinsic motivation – such as a hunger for fun, aversion to boredom, and desire to improve status and gain access to services before others – easily manipulated by prizes of insignificant cost (which is why gamification is supposed to be more cost effective than older loyalty programs, which gave away plane tickets or every tenth coffee for free). As in the classic liberal model, they are generally seen as calculating subjects looking for profit and utility, but their rationality is now understood as much more localised. For neoclassical economists, subjects’ limited rationality, only partial knowledge about the market, and tendency to choose short-term gains over long-term development were seen as fundamental threats to the well-being of the economic ecosystem. Gamification differs: this localised rationality, which always pursues perceived utility in the given circumstances, is seen as a chance for someone to actually create new circumstances and thus benefit from these “selfish” actions of the subject.

While markets were always social constructs to begin with, gamification promises to create an entirely new market, according to the client’s need. Let us remember that advanced gamification systems seldom use “real” money: Cunningham and Zichermann (2012, pp. 12) clearly state that cash prizes, or those easily converted to cash, are generally a suboptimal idea. It is not surprising that modern loyalty programs and gamification structures create their own currency (points, miles, gems, coins), which can sometimes be bought directly with real cash, however cannot be exchanged in the other direction. By producing new tokens of value in an entirely controlled environment, the designer of the game or gamification can influence cus-

tomers' or employees' behaviour: he can expect them to pursue points in a quite rational way, but at the same time he is the one to decide what is awarded with those points and what the user can do with them. Gamification can thus use users' general upbringing in a market-based society according to the designer's needs.

Fourcade (2010) notes that price techniques make things countable and tradable, and thus "bring market into existence" (p. 45) – in her article, she explains the mechanism of giving a price to previously immeasurable and untradeable things, like the condition of the natural environment. But while such social actions can bring new elements to the market, other procedures can to some degree take some goods from it (with the abolition of slavery in the USA, the free market for African life itself ceased to exist, at least to some degree). Localised system-building features of gamification, which create "artificial" markets as tools to influence the behaviour of the population, also have the power to put some element outside of the system – as we can see in the fact that gamified management software applies only to low-level employees and not CEOs. Another example could be a gamified education system, which gives points, badges and levels for individual or team accomplishments. While it could be effective and fun, it could also prevent any discussion about its own principles, goals and power mechanisms – critique of the education system, centralised bureaucracy or the position of the teacher is simply not a part of the game. Again, inequality of power was always there, even before gamification or standardisation. But the emergence of simpler game-like social systems makes the distinction between who and what is part of the game, and who and what is excluded and forbidden, perhaps more evident (and, on the other hand, hidden) than ever.

Sociology of science, and sociology of economics in particular, studies the performative effects of expert discourse, which influences reality as much as describes it (Fourcade, 2010). This consideration is also crucial in the context of gamification. We have to ask who is speaking, how authority is created, and what the individual goals of those people are. And the answers to these questions will somehow weaken some of the warnings about gamification, which I and many others presented earlier.

Unsurprisingly, gamification experts are usually game designers, entrepreneurs, teachers or keynote speakers, and in many ways profit from the spread of gamification. But even those who provide critical insight about this phenomenon are probably prone to overrating its importance, as they have invested time and resources into research. Furthermore, if expert knowledge is performative, then disturbing declarations of gamification gurus about the transformative power of their techniques should be treated not as realistic portrayals of their present effectiveness, but more as a complex conglomerate of wishes, prognoses, inspirations and marketing. This does not mean that gamification is just a scam or fad, or that it does not

work. Those impressive accounts of its successes could themselves lead to the spread of gamified social systems, influence more and more subjects, and – after some time – maybe give the game designer the power she now claims to possess.

Although gamification promises a new, fresh start and the replacement of old complex social structures with a new system that is engaging, clear, easy to manage, and based on mechanics and metaphors from video games, in fact those older cultural and social institutions would more often than not surprise the designer with their stubbornness or straightforward resistance. Dragona (2014) lists a number of counter-gamification techniques, such as obfuscation, hypertrophy or exposure. Any empirical account of the workings of gamification must thus cover this element of struggle against the system, which was itself intended to curb any possibility of it.

## Researching social system creation

In my chapter I have tried to understand different ways in which gamification works and expand beyond the basic notion of “making boring things fun”. I argue that gamification can be seen as a new way of creating a localised, market-like social system, which could create and direct subjects according to designers’ interests. Video games served as a powerful inspiration and source of mechanics, and their expansion as a dominant form of entertainment could further advance gamification techniques. On the other hand, it is entirely possible that the success of gamification will not be a long lasting phenomenon and that in a couple of years it will be replaced by the next buzzword, spreading from white papers and TED talks to business applications, using new metaphors and interpretations of human nature or neuroscience. I think that sociology of economy can help us grasp such practices of social system creation, serving as a middle ground between small-scale ethnological study and general philosophical critique.

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