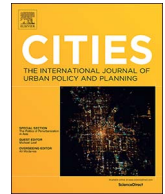


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Cities and the politics of gamification

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ABSTRACT

Gamification is widely intended as the mobilisation and implementation of game elements in extra-ludic situations, including the management of social problems and issues. By mobilising virtual rewards and playful elements, mobile apps, websites, social initiatives and even urban policies are getting more and more gamified. The aim of this viewpoint paper is to stimulate a critical discussion on the potential relationships between gamification processes and cities, particularly by reflecting on the cultures of gamification and by discussing potential lines of research for urban studies.

1. Introducing gamification

The keyword ‘gamification’ has gained huge popularity in recent years, moving from niche debates among digital gurus to wider discourses in policy making and the public sphere. In its essence, gamification concerns the mobilisation and implementation of ludic elements – or, better to say, videoludic elements – in order to manage ‘serious’ and ‘real’ issues (the expression ‘serious games’ is also widely used: [Richter, Raban, & Rafaeli, 2015](#); see also [Ruffino, 2014](#)). By introducing game mechanics such as rankings, scores, badges, levels, rewards and virtual currencies in apps and websites originally distant from gaming cultures, software designers and policy makers aim at stimulating public engagement and virtuous social behaviours (see for example [Deterding, Dixon, Khalad, & Nacke, 2011](#); [Zuckerman & Gal-Oz, 2014](#)). An example, among the many possible, may be useful in order to grasp the main logics behind the phenomenon.

The mobile app JouleBug¹ aims at encouraging sustainable living by proposing to the users a number of simple (and sometimes complex) ‘green’ tasks, such as turning off electric lights, setting your pc’s power savings in a proper way, taking shorter showers. The users receive points by acting in proper ways, by joining the ‘monthly challenges’ and by socialising the virtuous behaviour through the app. It is also possible to receive bonuses and additional points by sharing ‘great photos’ (as defined by the app), comments, ideas and information concerning sustainable behaviours. Results are transformed into charts, virtual trophies, badges and medals, which are constantly updated and exhibited through various social media, such as Facebook and Google

Plus, and by the app’s public leaderboard. Users are encouraged to compete one with the other in the quest for being recognised as a ‘sustainable citizen’. There are both global and local leaderboards, so that community-based initiatives are encouraged. According to the app’s website, “JouleBug Challenges can work for your organization: cities, schools, businesses”. By clicking on ‘cities’, the website states “Boost your city’s sustainability engagement with JouleBug Challenges. Show you care, motivate and engage with fun competition, and make a big impact!”²

Gamification is by no means limited to environmental protection. There are a number of apps, developed by both public and private institutions, promoting educational goals (lifelong learning), healthy behaviours (walking, eating properly), political participation (community development initiatives), crowdsourcing and crowdfunding, etc.³ In order to grasp the magnitude of the phenomenon, it can be mentioned that the European Commission is investing in the area, for example by proposing initiatives such as EnerGAware (Energy Game for Awareness of energy efficiency in social housing communities), and by funding various research projects concerning gamification.

At the same time, the academic debate on gamification is rather new. The main source quoted in relation to the definition of gamification is a paper by [Deterding et al. \(2011\)](#) published in a conference proceeding. The paper, which is largely cited (about 3500 quotations on GoogleScholar, on 20 October 2017), defines the phenomenon as “the use of game design elements in non-game contexts” ([Deterding et al., 2011](#), p. 1). According to the Authors, gamification comes originally from the business sector, and there is arguably a long history in the

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¹ <https://joulebug.com> (last accessed 31 July 2017).

² <https://joulebug.com/communities/challenges/city> (last accessed 31 July 2017).

³ [Zuckerman and Gal-Oz \(2014\)](#). A number of examples may be found at <http://www.gamesforchange.org> (last accessed 31 July 2017). See also [Mallon \(2013\)](#) for cases in the educational sphere.

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field, one that precedes the affirmation of digital technologies. For example, frequent flyer programs, originally introduced by United Airlines in the 1970s, may be considered as forms of games aimed at raising customers' loyalty: by getting more and more 'points' by flying, or by using specific credit cards, it is possible to gain 'levels' and to have access to privileged flying experiences or to exclusive spaces in airports (see various examples in [Reiners & Wood, 2015](#)). But it is probably possible to think of historical examples disconnected from business: this may be the case of the Scout movement, which often mobilises ranks, competitions and medals in a playful way with the aim of educating young people. However, gamification has gained huge momentum in public debates only in recent years, in the framework of the affirmation of digital technologies, social media and smart urbanism (for an overview of critical debates on smart cities, see for example [Hollands, 2008](#); [Kitchin, 2015](#)).

Together with the diffusion of gamification experiments, strategies and discussions, a number of scientific publications have started to explore different ideas and perspectives in relation to the topic. The aim of this contribution is to review some threads of the existing literature and to outline some possible research lines to be explored in urban studies. With this aim in mind, the next section tries to better frame the meanings of games and gamification. Then, section three presents key ideas on nudging and motivations in games, followed by a review of the literature on civic games and playful cities. Section five develops tentative critiques to gamification by mobilising the concept of subjectification and by reflecting on the governmentalities enacted through the gamification of cities; and section six takes a different direction by discussing how gamification may also trigger forms of insurgence and counter-hegemonic practices. Finally, the concluding section presents some final remarks and potential lines of development and research.

2. What is gamification, and, what is a game?

Let's start by saying that it is quite hard to try to define what a game actually is. Game studies is an interdisciplinary field of research merging perspectives from anthropology, sociology and psychology, among others. The analysis of playing and games in culture and society has been discussed in the highly influential work of Dutch historian Leyden J. [Huizinga \(1938\)](#). In his book *Homo Ludens*, he defined play as follows:

“a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means” ([Huizinga, 1938](#) [1950], p.13).

Sociologist Roger [Caillois \(1958\)](#), in his classic contribution entitled *Les jeux et les hommes*, expanded this definition by distinguishing between play and games, and intending the latter as activities which are formally *free, separated* in time and place, *uncertain* (the course cannot be determined), *unproductive, governed by rules* and *make-believe*, which means that they are different from the rules and logics of ordinary life. However, it is relatively easy to notice that many things, which are commonly considered as games, fall out of this conceptualisation. For example, many games and forms of gaming are not strictly 'fun'; many 'serious games' imply productive activities ([Pearce, 2006](#)), and many forms of games and videogames are not governed by rules in strict sense (cf. [Rodriguez, 2006](#)). Rather than trying to set the boundaries of games and gaming practices, current games studies tend to assume constructivist perspectives and to focus on games as elements of a particular form of culture, that is game culture ([Steinkuehler, 2006](#); [Mäyrä, 2008](#); [Shaw, 2010](#); for a cultural geography perspective see [Ash &](#)

[Gallacher, 2011](#); [Ash, 2015](#)). Put it differently, the definition and the analysis of games has to go beyond the properties of the game artefact to include situated and socially constructed meanings ([Ash & Gallacher, 2011](#); [Consalvo, 2009](#)).

The idea of games as cultural processes challenges conventional understandings of game and play. As anticipated, games used in fact to be traditionally intended as distinct and 'bounded' systems: by engaging in a game, the player accesses an alternative and ephemeral reality – usually named 'magic circle' in game studies (see for instance [Consalvo, 2009](#)) – characterised by rules, goals, logics and roles which may differ meaningfully from the ones characterising ordinary life (cf. [Huizinga, 1938](#); [Caillois, 1958](#); see also [Bateson, 1972](#)). The point is that gamification tends to blur the (imagined) boundaries separating game and ordinary life, and in this sense gamification has been also described as a form of 'pervasive gaming' ([Mäyrä, 2008](#)). Even more: [Palmer and Petroski \(2016\)](#) affirmed that gamification does not involve in any way 'playing games'; rather, it concerns embedding game thinking or game mechanics in daily activity such as shopping, exercising, or working on a pc in order to make that experience more attractive ('enjoyable', according to the Authors) or efficient. Gamification therefore aims at reaching goals which go beyond the game context. This is different from the case of other 'serious games'⁴ and game-based learning processes – where the playful activity is supposed to have educational and informative aims, or to simulate reality ([Dickey, 2015](#)) – as gamification directly applies game elements within non-playful contexts in order to induce desired conducts, i.e. to nudge behaviours.

3. Nudges and motivations in gaming

The concept of nudging developed in the context of behavioural economy has been most famously discussed in the bestselling book *Nudge: Improving decisions about health, wealth and happiness*, by [Thaler and Sunstein \(2008\)](#). The book argues that humans are economic agents characterised by limited and bounded rationality, because, for example, they are too lazy, busy or impulsive to process all the information available, their sense of interest is subject to external influences, and they tend to show inertia or to search for simplification when facing a decision, for instance by opting for a trusted brand in the sphere of consumption ([Leggett, 2014](#)). Human decisions are therefore driven to a large degree by emotions or by the mobilisation of repetitive and automatic behavioural patterns. In this scenario, [Thaler and Sunstein \(2008\)](#) argue that behaviours may be driven by developing appropriate 'choice architectures', i.e. by shaping the contexts in which people make decisions. In their view, choice architectures are inevitable, as choices are always presented and framed in some forms which are partial and situated. With this perspective in mind, the two Authors use the expression *nudge* with reference to “any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any option or significantly changing their economic incentives” ([Thaler & Sunstein, 2008](#), p. 6; cf. [Leggett, 2014](#)). Nudges do not aim at changing value systems or at providing information; rather, they encourage behaviours and decisions which are supposed to be beneficial for society and for the individual, for example acting in sustainable and healthy ways. This can be archived through a number of tools, such as: shaping the way information is presented and simplified; changing physical environments (for example urban design may encourage the choice to move by bicycle); defining default choices (i.e. standard patterns in absence of explicit decisions; for example enrolling automatically individuals onto pension schemes in order to increase saving rates); motivating people with different kinds of immaterial rewards; and triggering processes of social imitation (which the authors

⁴ The conceptual distinction between 'gamification' and 'serious gaming' goes beyond the aims of this paper, and as a matter of fact the two terms are often used as synonyms. For a specific discussion, see [Richter et al. \(2015\)](#) and [Danelli \(2015\)](#).

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