

DEMOCRACY IS A SERIOUS GAME¹

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Abstract

It is a common belief within scholars and practitioners of citizen engagement that it is necessary to introduce game-like aspects in democratic practices to improve the number and diversity of participants. This argument has been mainly based on the widespread diffusion of gamification practices that from the private sector have been progressively adopted in the delivery of public services. This paper focuses on the consequences of introducing game like elements in democratic innovations, with a particular focus on participatory budgeting. In particular, we aim to research the extent to which the gamification of citizen engagement affects the epistemology of democratic processes. On one hand gamification can be an effective strategy to promote inclusion of traditionally difficult to engage & retain strata of the population. On the other hand the introduction of game-based interactions risks to significantly affect key characteristics of democratic processes, promoting excessive competition, introducing behavioral incentives that might undermine capacity building and reflexive behavior. This paper reviews recent debates in the game design community and recent practices with the objective of fostering a debate in the participatory governance literature.

Introduction

Over the past 25 years in many western democracies took place a bloom of experiments of Democratic Innovation (hereinafter DI) and the development of tools, methods and practices for active involvement of citizens and their organizations in public policy-making processes (Allegretti 2010). In particular, this paper focuses on Participatory Budgeting (hereinafter PB), one of the most successful Democratic innovation that after an initial consolidation in Latinamerica during the 90's has been diffusing in Europe and north America in recent years, and nowadays is delivered in large western metropolis as New York, Madrid, or Paris. The success and diffusion of PB in the last decades have been researched and studied under various disciplinary frameworks. Between others democratic innovations, PB has a number of peculiar features that make it particularly relevant for those who frame participatory democracy as a way to substantially “democratize the democracy”, focusing on the solution to some of the core issues underlying the current crisis of traditional representative democratic processes. On one hand PB can deepen democracy by giving voice to those that are commonly underrepresented in local democratic mechanisms. PBs aim to broaden the local public sphere quantitatively and qualitatively including marginal subjects or organized groups (Wampler and Avritzer 2004; Ganuza and Francés 2012). On the other hand, PB can enable alternative bottom-up processes of knowledge production and sharing regarding the same context of its implementation, generally alternative proposals for the production of the urban space. In this perspective, PB can be considered as an epistemic mechanisms aimed to produce alternative proposals for policy making based on the contamination between lay and expert knowledge (Nunes and Carvalho 2013; Fung 2006). PB not only can produce alternative solutions and public policies by dignifying and reusing lay knowledge, but also represents an opportunity for the empowerment of inhabitants.

¹ This paper has been developed under the framework of the project EMPATIA (Enabling multichannel Participation Through ICT Adaptations). EMPATIA has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 687920. For additional info <https://www.empatia-project.eu>

Along the last two decades, digital technologies have been transforming significantly the delivery of PB, opening new possibilities to design and manage complex interaction between a large number of users. In particular, the combined use of *Collaborative Platforms* and mobile technologies allowed to scale up and diversify the access to deliberative and consultative processes, involving new publics commonly excluded by traditional in-person means of engagement. The majority of PBs still remains hybrid, meaning that digital channels of interactions are combined with traditional in person means of engagement. Nonetheless the integration of collaborative technologies increases the complexity of the overall institutional design of PBs and introduces new challenges to both the engagement capacity and to the deliberative quality of such processes. While the first generation of e-participation platforms have been missing the core objective to increase engagement and retention of users, (Prieto-Martín, de Marcos, and Martínez 2011), a more recent wave of platforms took the distance from the bureaucratic – institutional fashion of the first interfaces and that tried to re-use engagement techniques coming from other domains. A recent trend proposes to introduce game design element in the interface collaborative platforms. The main purpose of gamification is the creation of game-based incentives that are supposed to boost the engagement and retention of users on these platforms (and consequently in the processes they manage). Gamification of DIs can be read as an exploratory (and relatively recent) niche of a larger movement of gamification of interactions in a large number of economic and social domains where relations are mediated by digital devices. But while gamification has been successfully tested in the private sector and in the delivery of public services, its integration in the delivery of DIs as the PB appears to be not perfectly linear and compatible with the democratization discourse underlying them.

This paper focuses on the consequences of introducing game like elements in democratic innovations, with a particular focus on participatory budgeting. In particular, we aim to research the extent to which the gamification of citizen engagement affects the epistemology of democratic processes. On one hand gamification can be an effective strategy to increase the number of participants and promote the inclusion of traditionally difficult to engage & retain strata of the population. On the other hand, the introduction of game-based interactions risks to significantly affect key characteristics of democratic processes, promoting excessive competition, introducing behavioral incentives that might undermine capacity building and reflexive behavior, and finally blurring the boundaries between the gameful experience and the democratization purposes of participation.

This paper reviews recent debates in the game design community and recent practices with the objective of fostering a debate in the participatory governance literature.

The paper is divided in four small chapters.

- In the first part we provide a definition of the (institutional) design of PB, focusing on the transformation introduced by the use of collaborative platforms during the last decade.
- In the second part we provide a brief review of core literature on gamification.
- In the third part, we use the concepts previously described to create a conceptual framework for *gamified participation*.
- Finally, in the last chapter, it is provided a preliminary state of the art of the game design elements currently used in collaborative platforms for participatory budgeting.

The hybridization of the Institutional Design of PB

DIs as the PB can be considered as “institutions that have been specifically designed to increase and deepen citizen participation in the political decision making process”(Smith 2009). In recent years, significant number of research focused on the detailed analysis of the

institutional design of DIs, intended as the as the set of rules that regulates the interaction between participants (individual or groups) and official institutions, and between participants themselves. The notion of institutional design used in this paper is not only limited to the design of the deliberative procedures of PB, but encompasses also the definition of the means of interaction that characterize each stage of the PB delivery². The question regarding the involvement of participants in co-designing procedures and means of interactions of a democratic process is a central topic in the debate over the democratization of democracy. According to Santos, many of the original experiments of participatory democracy developed in the global south during the last decades have been exactly aimed at a reconciliation between process and procedure (Avritzer and Santos 2005), as a reaction to the extreme formalism of the western models of representative democracy. The institutional design of new participatory institutions aimed at inclusion and empowerment of participants should reflect its democratization purposes in specific procedural and “technological” choices.

But what kind of design is then auspicious for DIs? Without expanding it in details, here is a paraphrase of one of the most popular debates on democratic innovations centered around two polarized approaches to the relation between processes and procedures, respectively a between a deliberative and agonistic one. On one hand, on a “deliberative” perspective developed under the broad umbrella of habermasian rationalism, the design of a DI shall try to embed structurally the ideal condition of discourse, creating an environment for decision making processes based on rationale argumentation principles, and producing decisions oriented to the best attainable common good. On the other hand, on an agonistic perspective, the design of a DI shall recognize the impossibility to overcome the pre-existing power relation that will be Here the classic critic of Mouffe the practical unlikelihood of the condition of the ideal discourse in the empirical world, given the impossibility to leave aside the particular interests of individual and groups participating to a deliberative process. Unequal and asymmetric conditions pre-existing would then influence their capacity to act under the conditions defined by the formal design of the process. In summary an ideal design of a DI should be not only have explicit, clear and functioning procedures, but also be able to make explicit the implicit factors that can condition the outcome of the process. In this perspective, the democratization capacity of a DI is related also to the capacity of its participants to understand and eventually influence their institutional design and the level of command they have on the procedural choices adopted.

Such considerations appear even more relevant if we apply them to hybrid democratic innovations, where the design is cross fertilized by new non-human actors, machines, hardware, software that directly condition the way through which human participants behave and interact. It is more relevant because of the complexity of these new human tools that directly embed operations and functions that were previously carried out in person. CAPS have been enthusiastically integrated in all those process that aim to expand the outreach and increase the quantity of participants, enabling asynchronous interactions and eliminating distance-related barriers. PB, as many other DIs, ground its legitimacy in the capacity to engage large number of participants and the collaborative platforms emerged along the last decade enabled a new generation of PB processes on scales that were unimaginable before (Secchi, Allegretti, Giovanni, and Spada 2016).³

While there is no doubt regarding the quantitative growth of participants, there are doubts regarding the qualitative composition of this growth, and concerns regarding the way in which interactions mediated by digital tools can influence the behavior of participants, the way in which data and information are generated, the way in which consensus is aggregated, and

² A detailed description of multiple level of design in (Secchi 2016)

³ CAPS also created new challenges to the inclusiveness of those PB processes, introducing new skills related barriers and

therefore the same deliberative quality of those processes. Indeed, the integration of collaborative platform can't be then considered only an additional communication tool used to promote publicly the processes, since they became a new space where a large part of these processes are carried out. This space is not empty, but regulated by complex algorithms and pieces of code that embed explicit and implicit conditioning rules.

CAPS influence the deliberative procedure of DIs explicitly, by embedding in their code and in their interface the explicit rules of the Democratic Innovation. For example, the rules for voting in a PB process or the rules to deliver a discussion on a public forum online are exactly reflected in technological specifications and configurations that allow participants to deliver certain actions according to the permissions guaranteed to its digital user. But, implicitly, the way in which such rules are reflected in usable interfaces can significantly influence the behavior of participants. Let's think for example to the criteria adopted to order and show the list of proposals in the voting stage of a participatory budgeting, which is a common problem of PB platforms because it requires to deal with a large number of topics (many redundant). They could be ordered randomly, for date of submission, in alphabetic orders, for numbers of votes already received, for number of comments, and also according to the preference of the user that is looking at them, calculating the best visualization with an algorithm that show first what is supposed to be more interesting for the user. "Filter bubbles" are not a prerogative of the Facebook (and, by the way, the same Facebook is often integrated in many of these hybrid processes) but can be replicated in any collaborative platform.

So, while these platforms transform and interpret the institutional design of the process, the capacity of participants to understand (and eventually to change) the "rules of the game" is challenged by the growing complexity of the new digital elements introduced and by the high level of specialization required.⁴ Therefore, the command of participants on the institutional design of hybrid DIs seems to be more limited in comparison with traditional in person processes, questioning the actual possibility of a "reconciliation between processes and procedures" quoted at the beginning of this paragraph. Caps and other digital elements increase the complexity of the institutional design of those processes and requires specialized figures to develop and configure the interfaces that will be the part of the platform "visible" and "understandable" to the large majority of the users and will steer their interactions throughout the digital domain of the process.

In this paper we will focus on the epistemic implications of the gamification of the institutional design of DIs, which is a specific interaction design strategy for collaborative platforms aimed to engage participants with games element and techniques. As we will observe in the next chapter, the two core questions regarding the relation between game setting and real contexts of implementation, and of the command of participants on the rule of the game, have been central points also in research on games developed in XX century.

Gamification

In recent years, gamification has been successfully defined as "the use of game design elements in non-game contexts"(Deterding et al. 2011)⁵. This definition is one of the first attempt to capture - under a scientific perspective - the extreme variety of practices, theories and techniques that have been labeled as cases of "gamification", a new promising domain that become popular also in the academy after its popularization in a famous Ted Talk by Jane

⁴ This conclusion don't only regards the final user of such platforms, but could also be extended to the managers, civil servants, politicians and researchers that uses those tools to design and manage PB processes.

⁵ According to Google Scholar, the definition of "Gamification" most commonly quoted in recent articles and publications (around 3000 citations, mainly concentrated in 2015 and 2016).

McGonigal (McGonigal 2010). Nowadays “gamification” is now a “buzzword” on which different interpretations of very diverse traditions of practices and research on games have been conflating. According to Deterding and Walts, the current conceptual space covered by the “gamification” evolved from the traditional limits of games, “bringing games into new contexts, situations and spaces” (Walz and Deterding 2015). It is the result of the convergence between various streams research including behavioral psychology interested to test pleasurable incentives, the experiments in work contexts to increase the productivity of workers (Nelson 2012); the research for playfulness design in HCI disciplines and the development of reputational systems (Farmer and Glass 2010); and on top of everything, the tradition of Serious Games and other sub-families (as Pervasive Games, alternate reality games, etc.).

Indeed, the use of games in non-game context dates back to ancient times and well before becoming an academic domain, “serious” games were implemented in a variety of domains from education to military, research, business, public services (Deterding 2014; Nelson 2012; Asquer 2014). If the use of games in non-game context has a long history, a proper field of game studies have been emerging only from the 80s, while a number of disciplines already researched the role of games in society starting from the first part of the XX century, including cultural history, anthropology, sociology and social psychology in particular. The majority of existing literature reviews on game studies refer to the work of Huizinga and Callois as the “pillars” of a proper disciplinary domain. In the book *Homo Ludens* (Huizinga 1955) the multifaceted “nature and significance of play as a cultural phenomenon” is explored through the lens of history and semiotic, analyzing the different conceptions of the “play-concept” developed in different languages and cultures. The author pictures “play” as an epistemic experience that produces meaning the players and, while being “essentially a not serious activity” (Rodriguez 2006, 2), it can generate serious “meaning” and knowledge applicable to any cultural dimensions in which play is contextualized. Roger Callois (Caillois and Barash 1961) expanded this loose and flexible definition of play, proposing various categorization of play and game experiences and archetypes. Particularly relevant for our purposes is the polarization between “play” and “game”: On one hand “play” is associated with the concept of *paidia*, characterized by improvisation and spontaneity in playing, tumult, lack of space/time limits, and lack of structured predefined rules: rules and patterns can emerge in the playing experience but are not designed before it. On the other hand, “game” is associated with “*ludus*”, meaning structured games with formalized rules, turns, guides, limits, clear explication of internal purposes and eventually of the relation between the purpose of the game and external purposes, entrance and exit rituals and in general the dependence from a game design pre-existing to the game experience. As it is possible to infer most of play and game experience are somehow the result of the combination of elements coming from both *ludus* and *paidia*, whose reciprocal configuration can generate different effects on the experience of players.

Differently from proper games, current gamification is a strategy aimed to include some elements of game design in non-game contexts and, even if playful oriented elements can be found, it mainly regards elements that are proper of a gameful experience, which is usually more oriented to the rationalization and quantification of the game performances that is typical of digital gamified interfaces. As it is possible to infer, the boundaries between a proper game and a “context with game elements” can often be blurry and it is difficult to define exactly at what stage a sum of element transform a non-game situation in an actual game. The reason is not only in the difficulty to classify game elements, but also in the consideration that “game” is a “composite category of multiple necessary conditions” (Deterding et al. 2011, 11). Moreover, we have to consider, the current hype of gamification takes place in a different technological context and has been boosted by the availability of digital technologies that extended the for gaming in space and time. In addition to the pervasive availability of digital

devices, the majority of contemporary digital interfaces provided by the big majors of the web are already permeated of a number of game elements that behavioral incentive engagement and retention of users through quantified performance measurement or reputational feedbacks (Vaidhyathan 2011). Expanding the view outside of the digital domain, media scholars observe a “ludification of culture” (Raessens 2006) and reduction of the difference between leisure and work time (Rey 2015) that furtherly contributed to blur barriers between games and the context they refer to.

As a consequence of this ambiguity various scholars and practitioners criticized the potential behavioral conditioning of gamification as a biopolitical mechanism of self-induced control that is used to push users to subjectify behaviors targeted purposely by the game designers (Bogost 2013; Rey 2015). Ippolita (Ippolita 2016) used the metaphor of the “skinner box” to describe the operant conditioning power of external rewarding schemes, where also a simple animal (a pidgeon) can be trained to perform certain actions to in response to specific rewards. To what extent the gamers/users of gamified platforms are actually aware of the behavioral conditioning purposes that underlie interaction design (even if for example the purpose is the engagement in a really important democratic innovation)? To what extent are they able to take reflexive space to rethink on the actual conditioning of their behavior during the game/gamified experience? Deterding and other scholars reinterpreted the work of the anthropologist Victor Turner (Turner 1983) to create a conceptual framework to discuss the autonomy of gamers in a game setting. Readapting the work on liminalities in rituals of tribal societies delivered by Turner, it is possible to define two different approaches to the relation between users, game setting and its context of implementation. On one hand, under a liminal perspective, game elements can be integrated without making explicit their purposes to the subjects, in order to promote behavioral conditioning towards means that are external to the same game narrative. It is the case for example of the gamification of sustainable behaviors in a smart city, where citizens gain points according to their sustainable performance in mobility or waste recycling (see for example <https://www.betterpoints.uk>, where citizens are incentive to gain points through sustainable mobility and eventually exchange them for physical rewards). On the other hand, under a liminoid perspective, the game setting and its rules and purposes are clearly defined and made explicit to the participants that is aware to be into a game-like situation. In this manner the participants can be empowered by their reflexive game experience once they leave the liminoid space where societal order is suspended. This is for example the case of the EMPAVILLE (<https://empaville.org>) an hybrid role-playing game where participants are invited to simulate a digital PB session in an imaginary island. At the end of the simulation, the game experience is used by participants to reflect on the implications of procedural and technological choices on the deliberative quality of the processes, reusing the knowledge created during the game experience to design actual PB processes. Differently from a liminal experience, the liminoid approach don't lead directly to behavioral conditioning toward predefined purposes external to the game logic. At the opposite, the liminoid space of games can be used to develop radical critics toward the societal context of its implementation.

As other dichotomies presented in this paper, also this one shall be intended as a simplified interpretative scheme useful for a critical approach to game design and, as we'll see in the next chapter, to interpret the influence of gamified interfaces on DIs and PB in particular.

Gamified Participation

Combining the definitions of previous paragraphs respectively of Democratic Innovations and Gamification, it is possible then to define gamified participation as “the use of game elements in the (institutional) design of a democratic innovation”.

Obviously some design elements could (and actually are) used also in traditional in-person Democratic Innovations⁶, but also in this case we refer principally to the contemporary trend of experimenting game design elements in CAPS used to manage the way through which participants interact between themselves and with the other public and private stakeholders involved. As in other domains recently gamified, also in this case the main purpose of gamification is a wider (in numbers) and extended (in time) engagement of participants, by introducing motivational gamified incentives. Indeed, the overall quantity of participants is a relevant legitimacy variable for the majority of democratic innovations and PB in particular. In addition, complex DIs are not exhausted in a single interaction (as for example in the case of a simple poll) but require repeated interactions varied over time. In PB, along a year of consultations, inhabitants pass through stages of information, elaboration of ideas, discussion and negotiation with other inhabitants, development of alternative proposals until a proper voting stage that concludes the process. Exactly as it happens in in-person settings, also e-participation platforms need to include a different interaction design for each stage and need to retain participants along a relatively long period of time. So, the primary purpose of gamified participation is not only to increase the number of participants, but also to retain them to spend more time online, by introducing gamified incentives that could motivate inhabitants to participate to debates and consultations around topics normally regarded as bureaucratic and not appealing for non-expert participants.

With these objectives in mind, enthusiastic some game elements have been progressively integrated in the new generation of HDI. Nonetheless, the actual engagement&retention capacity of gamified platforms for citizen engagement it is still to be tested empirically. Indeed, also in other domains the number of gamification experiments that failed to create functioning incentive schemes is larger than the ones that succeeded (Scott Rigby 2015). Choosing the correct behavioral incentives adequate to the context is still an easy task and the current mainstream hype on gamification tends to overestimate the capacity of game elements and their transferability from a context to another. Preliminary studies show a trend of engagement with an initial peak of motivation and capacity to increase the quantity of participants, but there is poor evidence on the retention of these new users on the long term. (Thiel 2016; Secchi, Allegretti, Giovanni, and Spada 2016). Similar trends can be observed also in the case of gamified PB platforms, where the increased capacity to engage people in the voting stage do not correspond to an equivalent retention along the other stages of the process (Stortone and De Cindio 2014). Even less data are available regarding the socio-demographic data of participants engaged through gamified interfaces and it is difficult in this moment to provide empiric evidence to the engagement thesis (even because the unbalance between participation to the stages of proposal-making and voting has been often observed also in traditional in-persons PBs).

So, while on one hand the inclusive effects of gamified design still require further field research⁷, this paper focuses on the influence of gamified elements on the epistemic dimension of those processes. To what extent gamified design alters the perception of the participants and the way in which they interact with the platform (and with each other)?

Can be useful here to adapt the conceptual framework based on Turner and presented in the previous chapter regarding the relation between the participants and the context to interpret to what extent the gamification of participation influences the autonomy of the participants and their perception of the same means and purposes of their gamified experience. At a first

⁶ The book *Make Democracy Fun* (Lerner 2014) reports a number of cases of use of game techniques for citizen engagement pre-gamification hype. Another completely different example is the use of Theatre of the oppressed techniques in combination with PB (Dalla Déa 2012).

⁷ In the EMPATIA projects all pilots are collecting socio-demographic data of participants and a preliminary analysis of inclusiveness will be delivered at the end of the pilots (2018).

glance, we could consider gamified participation as mainly liminal, as a design strategy aimed to condition the behavior of participants to the purposes of the democratic innovation (in the case of PB it is for example to register and provide personal data, to make proposals regarding the urban space, to cast preferences and vote, etc.). Such purposes are generally defined directly by the public authority that steers the PB process, and only in a large minority of cases the participants are invited to contribute to the definition of the institutional design of such processes. In this perspective it could be possible to interpret gamified participation as another operational conditioning mechanism that serves to reaffirm the social and political context existing outside of the gamified participatory sphere, creating consensus around it. On the other hand it is also necessary to observe how these liminoid elements are present in the majority of gamified DIs, as for example the existence of clear deliberative rules, the explication of the purposes of the citizen engagement, entrance and exit rituals, as well as proper reflexive moments that can be structured (focus groups, questionnaires, evaluation and monitoring tools) or not (socialization of the experience in other social contexts). In this manner participants are invited to reconsider their gameful experience and to evaluate it through the critical lens of the serious results of their participation in the relation with the other participants and in general in the social and political context in which they live. Liminal and liminoid tensions crosscut the experiment of gamified participation.

Game design elements in PB platforms

But what is the current state of the art of Gamified Participation, at least for what regards platforms used to manage PB processes? In this chapter we will provide a preliminary overview of what kind of game elements are actually being experimented in the most popular PB platforms currently used in Europe.⁸

Literature on gamification provides a number of attempts of classification of game elements that starting from the classic categories from Caillois (Caillois and Barash 1961), encompasses more recent attempts (Hunicke, LeBlanc, and Zubek 2004; Deterding et al. 2011; Deterding 2014) and even an attempt to define a preliminary framework to analyze game elements in e-participation platforms that is particularly aligned with the purposes of this paper (Thiel et al. 2016). The research delivered under EMPATIA uses in particular the classification developed in Thiel and Deterding in a simplified manner, in order to provide a preliminary feedback on the state of the art of gamification in PB platforms. Not being an attempt to provide a new normative definition of “game elements” in this case we accepted a loose definition of elements that are “characteristic of games”, meaning that they are “found in most (but not necessarily all) games, readily associated with games, and found to play a significant role in gameplay.”(Deterding et al. 2011, 12).

Gamified User Interactions

⁸ Methodological note: this research has been delivered upon 14 different platforms analysed in the initial stage of the EMPATIA project in order to define the requirements for a new innovative platform for design and management of hybrid PB processes. The sample includes some of the most popular platforms used in the largest European cities at the date of December 2016, but it is not expected to be exhaustive. The research delivered under the framework of EMPATIA collected also data and information regarding: the technical specifications, the functional features with respect to the delivery of participatory interactions, the data management strategy and its compliance with ethical standards, the use of third party software integrated to the main platform. The final results of this research will be published in March 2018 on the open data repository of empatia-project.eu.

The research has been delivered remotely, by experimenting directly and mapping game design elements according to the framework described in this chapter. In some cases the test has been delivered on a “demo” version, while in others we took into consideration use cases.

A first group of game elements can be considered as user interface design patterns centered on the quantification of user's experience and achievements through the use of the platform.

This group includes elements as:

- Mastery: Quantitative mechanisms to show the achievements of the users in relation with the object of the gamification. (eg: points, leaderboards, badges)
- Relatedness: Public (to other participants) status defined in relation to the community of participants, based on reputational parameters and experience quantification (eg: levels of experience)
- Autonomy: Personalization of profiles and other free spaces of expression (eg badges, avatars)

These elements are expected to reinforce the relation between real and gamified identity of the participants using internal incentives that led back to the "internal" motivational theory of Rigby, according to which external incentives are destined to lose power on medium and long term. At the opposite the pleasure of taking part to a gamified experience is based on the achievement of (measurable) mastery levels, the recognition of a gameful experience in "relatedness" with other gamers and finally the autonomy to personalize and explore non regulated spaces within the gamified experience (Scott Rigby 2015).

At a glance, the level of experimentation of these elements is low. As it is possible to observe in table 1 none of the observed platform actually includes Mastery elements and only a limited number includes reputational schemes. The majority of the platform analyzed allows some (basic) personalization, but it is actually a bit of a stretch to consider it as a level of gamification able to influence the participants.

These kind of elements can be particularly expanded in simulated settings and persistent communities, where gamified identities are generated in relation with other users gamified experiences. At the contrary, platforms for PB usually require the registration and authentication of users under their actual names, reducing the opportunity for developing new "characters" with a behavior that is radically different from their social role and attitude. For this reasons these elements can be considered, in PB platforms, mainly in a liminal perspective, since the user identity correspond to an actual identity (often a public one) and the kind of interactions that are gamified in the platform are generally an extension of preexisting social role and dynamics.

One interesting observation regard the fact that the majority of the platforms allows integration with third party software that includes pre-existing gamified identities and relations, and in some case is able to import them into the new platform. It is the case of faceconnect (that in some case includes the possibility to extract data related to the number of friends and other gameful information) or Disqus, that includes a reputational algorithm that ranks participants (even if it is visible initially only to platform managers for discussion moderation purposes).

Gameplay Patterns and Mechanics

A second group of elements refers to game design patterns and mechanics that shape the gameplay and the relation between the users and the object of interaction, in our case the decision regarding alternative proposals for the public expenditures. Example of these elements could be

- Feedbacks provided to the user in relation to his interaction with the purpose of reinforce or encourage specific actions. (eg. Reminders, notifications, "marvelous!")

- Time constraints, turns and other chronological drivers for the gameplay (eg. Due dates, , game levels)
- Competitions and contexts related to the object of gamification (eg. voting/preferences and leaderboards, highscores, etc)
- Proper Challenges and gameful tasks to be performed under predefined condition (eg. quests, missions)

These elements can be found in form of simpler patterns or more complex mechanics that combines different patterns into sequences of practices of human computer interactions (Taylor 2009). In platforms used to deliver complex processes as the PB, these elements can be found in some stages and not in others, but in general terms, it is possible to observe how gameplay patterns are more recurring than the elements of the previous group.

At a glance, the majority of platforms include feedbacks and incentivizing reminders related for example to the advancement of the PB process or to the progress of a proposal submitted, as well as the possibility to follow topics receiving notification from it. In some case the level of gamification is more advanced, introducing visual elements that can make feedbacks more appealing and rewarding. Most of the platform also includes elements of time constraint, the existence of different stages of advancement, each one with its own due date and deadlines. Finally, almost all platform used to manage PB processes integrated competition elements, as the preferences and votes that are casted and collected in different stages of the process in order to create leaderboards between the existing proposal.

It is to highlight that the cases observed are used to deliver a PB, a process in which different alternative proposals developed by users compete between each other to receive funds (in a context of limited resources). Even before becoming digital, PB incorporated gameplay patterns of competition, even if in this case the competition is not between the individuals, but between projects and proposals that shall be able to aggregate the larger consensus possible within the participants. A similar consideration regards the existence of stages and turns that are typical institutional design elements of PB processes that along the years cross through stages of ideation, filtering, voting and monitoring (UN-Habitat 2004).

Conclusions

In conclusion we can come back to the initial question of this paper, trying to understand how the introduction of game design element can influence the epistemic machinery underlying PB processes.

The overview on existing gamification platforms seems to confirm the results of the research conducted by Thiel and al and previously quoted, according to which “qlthough a great portion of e-Participation projects can be classified as game-related, only eight Platforms (out of 130 analysed) fall under the category of applying gamification.” (Thiel et al. 2016, 49).

Also in this case it is difficult to exactly assess the level of gamification of PB platforms. Indeed the gameplay mechanic underlying PB platforms is strongly intertwined with the competitive logic proper of PB design, structured as a progressive succession of stages of proposal filtering, refinement and selection. In this perspective it is possible to observe how game design elements characteristic of games are perfectly compatible with the traditional PB design and it is not easy to imagine a possible PB platform that do not include such kind of elements.

A hypothesis to be further explored empirically regards the possibility that gamification emphasized those elements. While in person PB design generally tries to balance between competition and cooperation, including collaborative spaces and fostering alliances between groups and merging of compatible proposals, gamified PB platforms seems to emphasize the competitive dimension based on aggregation and quantification of individual preferences.

Designing gameful interfaces for cooperation is much more complex also because the contemporary market of ideas offers “this” kind of gamification, developed by the private sector and mainly for marketing and commercial purposes. Interaction designers of collaborative platforms cannot count on the economic and technical resources that can be invested in the private sector.

It is still possible in this condition to talk about this platform as cases of gamification? Probably not, or not completely, in particular if we compare these case studies with other kind of gamified DIs (Table 1) where more elements characteristic of games have been introduced with the explicit purpose to make the user experience gameful, and create behavioral incentives to use and re-use the platforms. On the other hand, PB platform designers had translated into a digital domain a Democratic Innovation that was already containing game design elements, using the grammar of gamification, that nowadays is a mainstream grammar for interaction design. In this manner, the concepts presented in this paper as the inherent liminal dimension of these platforms can be used to analyse the specific influence of game design elements on the behavior of participants, but also as a lens to evaluate the critical autonomy of participants and the democratization potential of gamified participation.

TABLE 1

	Platform	Address	Use Case	Date	User Interactions			Gameplay Patterns and Mechanics			
					Mastery	Relatedness	Autonomy	Feedbacks	Constraint	Competition	Challenges
1	DemocracyOS	http://democracyos.org/	Demo	01/set	0	0	0	0	0	1	0
2	OpenDCN	http://www.opendcn.org/	Bilanciopartecipativomilano.it	01/set	0	0	1	1	1	1	0
3	AppCivist	assembly/0bc7bea3-f253-4824-	PB Vallejo	01/set	0	0	1	0	1	1	0
4	OpaVote	https://www.opavote.com/	Demo	01/set	0	0	0	0	0	1	0
5	Changify	http://www.changify.org	Zurich	02/set	0	1	1	1	0	1	0
6	Your priorities	https://www.yrpri.org/	Demo	02/set	0	0	1	2	1	1	0
7	Loomio	https://www.loomio.org	Demo	02/set	0	0	1	1	1	1	0
8	Liberopinion	https://liberopinion.com	lisboaparticipa.pt	02/set	0	0	0	1	0	1	0
9	Budgetparticipatif.	fr/bp/	Paris, Mairie	04/set	0	0	1	2	1	1	0
10	Participare	https://participare.io/	Demo	04/set	0	0	1	1	1	1	0
11	Consul	http://www.decide.es	Madrid, Camara Municipal	04/set	0	0	0	1	1	1	0
Other Platforms											
1	Placespeak	https://www.placespeak.com/	Demo	04/set	0	1	1	2	0	1	1
2	Pol.is	https://pol.is	Demo	04/set	0	1	1	2	2	0	1
3	Citizenbudget	http://www.citizenbudget.com/	Ottawa 2018	04/set	0	0	0	0	0	1	1
4	Consider.it	https://consider.it/	Death Star Demo	04/set	0	1	1	2	0	0	0

BIBLIO

- Allegretti, Umberto. 2010. "Democrazia Partecipativa: un Contributo alla Democratizzazione della Democrazia." In *Democrazia partecipativa: esperienze e prospettive in Italia e in Europa*, edited by Umberto Allegretti. Firenze: Firenze University Press. <http://digital.casalini.it/8884535298>.
- Asquer, Alberto. 2014. "Not Just Videogames: Gamification and Its Potential Application to Public Services." *Digital Public Administration and E-Government in Developing Nations: Policy and Practice*, Edited by Professor Edward F Halpin. IGI Global, Forthcoming. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2429345.
- Avritzer, Leonardo, and Boaventura de Sousa Santos. 2005. "Opening Up the Canon of Democracy." In *Democratizing Democracy: Beyond the Liberal Democratic Canon*, edited by Boaventura de Sousa Santos. Reinventing Social Emancipation: Towards New Manifestos. Verso. <http://books.google.it/books?id=F8BMnwEACAAJ>.
- Bogost, Ian. 2013. "Exploitationware." In *Rhetoric/Composition/Play through Video Games: Reshaping Theory and Practice of Writing*, edited by Richard Colby, Matthew S. S. Johnson, and Rebekah Shultz Colby, 139–147. New York: Palgrave Macmillan US. http://dx.doi.org/10.1057/9781137307675_11.
- Caillois, R., and M. Barash. 1961. *Man, Play, and Games*. Sociology/Sport. University of Illinois Press. <https://books.google.pt/books?id=bDjOPsjzFC4C>.
- Dalla Déa, Ariane. 2012. "Representations of Culture in Theater of the Oppressed and Participatory Budgeting in Brazil." *Latin American Perspectives* 39 (3): 51–62. doi:10.1177/0094582X11427885.
- Deterding, Sebastian. 2014. "The Ambiguity of Games: Histories and Discourses of a Gameful World." http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2463983.
- Deterding, Sebastian, Dan Dixon, Rilla Khaled, and Lennart Nacke. 2011. "From Game Design Elements to Gamefulness: Defining Gamification." In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, 9–15. ACM. <http://dl.acm.org/citation.cfm?id=2181040>.
- Farmer, F. Randall, and Bryce Glass. 2010. *Building Web Reputation Systems*. 1st ed. Sebastopol, CA: O'Reilly.
- Huizinga, J. 1955. *Homo Ludens: A Study of the Play-Element in Culture*. Beacon Paperbacks ; 15 : Sociology. Beacon Press. https://books.google.com/books?id=oZgA8UDf3_4C.
- Hunicke, Robin, Marc LeBlanc, and Robert Zubek. 2004. "MDA: A Formal Approach to Game Design and Game Research." In *Proceedings of the AAAI Workshop on Challenges in Game AI*, 4:1722. <https://ocs.aaai.org/Papers/Workshops/2004/WS-04-04/WS04-04-001.pdf>.
- Ippolita. 2016. *Anime Elettriche*. Fuori Pista. Jaca Book.
- Lerner, Josh. 2014. *Making Democracy Fun: How Game Design Can Empower Citizens and Transform Politics*. MIT Press. <http://www.jstor.org/stable/j.ctt9qf6zk>.
- McGonigal, Jane. 2010. *Gaming Can Make a Better World*. https://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world.
- Nelson, Mark J. 2012. "Soviet and American Precursors to the Gamification of Work." In *Proceeding of the 16th International Academic MindTrek Conference*, 23–26. ACM. <http://dl.acm.org/citation.cfm?id=2393138>.
- Prieto-Martín, Pedro, Luis de Marcos, and Jose Javier Martínez. 2011. "The E-(R) Evolution Will Not Be Funded." *European Journal of ePractice* 15: 62–89.
- Raessens, Joost. 2006. "Playful Identities, or the Ludification of Culture." *Games and Culture* 1 (1): 52–57.
- Rey, P. J. 2015. "Gamification and Post-Fordist Capitalism." *The Gameful World: Approaches, Issues, Applications*, 277–296.

- Rodriguez, Hector. 2006. "The Playful and the Serious: An Approximation to Huizinga's Homo Ludens." *Game Studies* 6 (1): 1604–7982.
- Scott Rigby, C. 2015. "Gamification and Motivation." In *The Gameful World: Approaches, Issues, Applications*, edited by S.P. Walz and S. Deterding, 158–84. MIT Press. <https://books.google.pt/books?id=KDxTBgAAQBAJ>.
- Secchi, Michelangelo. 2016. "Hybrid Participatory Budgeting: The Challenges of a Multi-Channel Participation." In . Poznan.
- Secchi, Michelangelo, Allegretti, Giovanni, and Paolo Spada. 2016. "EMPATIA - D 1.1: Models, Methodologies, Scenarios & Requirements." Deliverable Horizon2020 D1.1. empatia-project.eu. www.empatia-project.eu.
- Smith, Graham. 2009. *Democratic Innovations: Designing Institutions for Citizen Participation*. Cambridge, UK; New York: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511609848>.
- Stortone, Stefano, and Fiorella De Cindio. 2014. "'BiPart' of Participatory Budgeting. A Software Platform for New Political Practices." In *Electronic Government and Electronic Participation: Joint Proceedings of Ongoing Research, Posters, Workshop and Projects of IFIP EGOV 2014 and EPart 2014*, 21:30. IOS Press. http://books.google.com/books?hl=en&lr=&id=523YBAAAQBAJ&oi=fnd&pg=PA30&dq=%22plays+a+crucial+role+in+politics+as+there+lies+a+large+part+of+political%22+%22is+a+participatory+practice+through+which+people+are+directly+involved+in+the%22+&ots=L1Lc94_Prm&sig=e3OPCH4pakuClO9NaXXGs1N6fig.
- Taylor, T.L. 2009. "The Assemblage of Play." *Games and Culture* 4 (4): 331–39. doi:10.1177/1555412009343576.
- Thiel, Sarah-Kristin. 2016. "Gamers in Public Participation: A Boon or Bane? Influence of Attitudes in Gamified Participation Platforms." In *Proceedings of the 15th International Conference on Mobile and Ubiquitous Multimedia*, 229–240. MUM '16. New York, NY, USA: ACM. doi:10.1145/3012709.3012723.
- Thiel, Sarah-Kristin, Michaela Reisinger, Kathrin Röderer, and Peter Fröhlich. 2016. "Playing (with) Democracy: A Review of Gamified Participation Approaches." *JeDEM-eJournal of eDemocracy and Open Government* 8 (3): 32–60.
- Turner, Victor. 1983. "Liminal to Liminoid, in Play, Flow, and Ritual: An Essay in Comparative Symbolology." *Liminal to Liminoid, in Play, Flow, and Ritual: An Essay in Comparative Symbolology.*, 123–64.
- UN-Habitat, ed. 2004. *72 Frequently Asked Questions about Participatory Budgeting*. Urban Governance Toolkit Series. Nairobi, Kenya: Global Campaign on Urban Governance.
- Vaidhyanathan, Siva. 2011. *The Googlization of Everything: (And Why We Should Worry)*. Berkeley: University of California Press.