

## Benjamin Duke\*

ORCID: 0000-0003-2220-6889

University of Leicester

### SHIFT IN BALANCE: UK PERSPECTIVE ON DEMOCRATIC DEFICIT ADDRESSED BY PARTICIPATORY TURN AND GAMIFICATION

This paper provides a conceptual theoretical review of participatory turn and gamification from a United Kingdom (UK) perspective. Democratic deficit is a perennial problem in urban-planning systems due to the number of causal factors. Participatory practices and gamification are two instruments that can be used to help alleviate low democratic responsiveness. The paper articulates how there are different ways of knowing and assessing community priorities and values – people need increased consciousness and self-confidence to participate. The UK case studies that are discussed have made a significant contribution by providing useful insights regarding the benefits and limitations of participatory practices and gamification. For example, ‘Participology’ and ‘Geogopoly’ have clear participatory gamification benefits even though they are unable to include decision-maker accountability or recreate real-life power relationships. This paper posits that the use of participatory practices and/or gamification as policy levers (specifically in UK urban-planning processes) will herald a shift in the balance of power.

Keywords: participatory turn, gamification, participatory research, democratic deficit, participatory practices

## INTRODUCTION

This paper is a review of the extant literature that has analyzed studies of participatory practices and gamification tendencies that have been predominantly published in the 2020s and devoted to cities that are coping with COVID-19. An analysis of the public’s relationship with participatory turn and gamification has provided answers to some critical questions along the way. The paper indicates that people’s senses of belonging increased with their senses of the community ownership of their locale. The paper identifies some of the causal factors that

---

\* University of Leicester Institute for Inclusivity in Higher Education (ULIHE), University of Leicester, University Road, Leicester, LE1 7RH, United Kingdom; e-mail: [bd158@leicester.ac.uk](mailto:bd158@leicester.ac.uk)

can influence those urban-design features that local communities value the most (Cavada, 2022, p. 9; Fox et al., 2022, p. 2; Lawson et al., 2022, p. 32; Palese, 2022, p. 74), those urban development policies that local people indicate that have had the greatest impact on their lives (Cavada, 2022, p. 9; Fox et al., 2022, 7; Lawson et al., 2022, p. 20; Muehlhaus et al., 2022, p. 5; Palese, 2022, p. 51; Tewdwr-Jones and Wilson, 2022, p. 234), and those changes that are needed in urban-planning policy to redistribute knowledge and democratization in communities (Fox et al., 2022, pp. 8–9; Lawson et al., 2022, p. 19; Muehlhaus et al., 2022, p. 2; Palese, 2022, p. 6; Tewdwr-Jones and Wilson, 2022, p. 229).

This paper consists of three sections. The first section discusses the role of the participatory turn and gamification in democratizing urban-planning processes. The reader is alerted to how a democratic deficit in local decision-making can be avoided by making civic participation more user-friendly. The second section discusses how participatory research can inform citizens of power relationships in their local communities. There is also discussion on how the participatory turn and gamification can re-awaken and empower local communities to benefit from civic engagement. The third section discusses various UK participatory and gamification practices alongside global case studies with a UK context. The COVID-19 global pandemic has affected urban-planning processes and increased the use of online participation and gamification. The paper concludes with a critical overview that reflects on various aspects of the participatory turn and gamification to summarize and recap key points.

## DEMOCRATIZATION, PARTICIPATORY TURN, AND GAMIFICATION

In the UK, democratic deficit occurs in many forms (Cavada, 2022, p. 10; Fox et al., 2022, p. 2; Lawson et al., 2022, p. 26; Muehlhaus et al., 2022, p. 5; Palese, 2022, p. 53; Tewdwr-Jones and Wilson, 2022, p. 229). Compared to other European countries, England has very large local authority areas and few local representatives per area (Palese, 2022). There is an absence of community control, identity, locale, and people's ownership of their living space and their place. Palese (2022) notified us of multiple critiques of local English politics in a number of areas. The English population is broadly supportive of their local authorities as potential change agents at the local level. English people are discontented that this potential does not materialize in reality. There are too few opportunities for local people to be able to engage with local decision-makers in order to have a say in what happens in their local community. What was attempted to be forced onto local communities during the height of the COVID-19 crisis in England is an apt case in point. Local mayors had some devolved powers, but the main crucial policy-forming agency still remained centralized in Westminster Whitehall. On more and more issues, participatory practices and gamification can help give local communities more agency in England and other areas where a democratic deficit resides in any of its forms.

Local government restructuring in the UK has been more about hidden centralism and cost effectiveness, not about giving communities local control. For example, a local government is only allowed to keep 50% of the business rate taxes that it collects; the remaining 50% must be sent to the central government (Palese, 2022, p. 48; Sandford, 2022, p. 19). The UK

government divides the country into large regional areas but has little idea of the needs of the small rural areas and parishes that make up the regional areas. England has nine ‘combined authorities’ or ‘metro mayors’ who cover large regions of the country – often taking in between two and ten cities along with several towns and villages (Institute for Government [IfG], May 6, 2022). Metro mayors are essentially regional mayors who came into being as part of the 2014 Devolution agenda in England. Combined local authority metro mayors are meant to have pivotal roles in enabling local democracy. In the UK, this intention has only been partially met; metro mayors have been installed, but they are essentially tokenistic figureheads whom central government can blame for local policy failures. “In negotiations with local leaders, the UK government made the introduction of metro mayors a prerequisite before any substantial allocation of powers or additional budgets. This was intended to provide a single point of accountability for decision making and for negotiation with central government” (IfG, 2022, p. 1).

The governance of smaller towns and villages that are not covered by a metro mayor remains the same. Such English units must rely on minimalist and tokenistic consultation processes that can be centrally overruled by Westminster Whitehall. Combined local authority metro mayors have not been introduced in the other three constituents of the UK that enjoy devolved governments: Northern Ireland, Scotland, and Wales. In the UK, there are few signs of deliberative participatory forms of local democracy (for example, citizen assemblies or local referendums). Democratic deficits due to unaccountable regeneration institutions has become an existential threat in the UK – especially if the systems that are in place and designed to enable civic participation act to prevent challenges of any urban planning processes that people feel are fundamentally flawed. UK ward council areas are simply too large for elected local councilors to be effective in representing their constituents. Large proportions of UK people feel disenchanting – disempowered by a local democracy system that they cannot access that does not work for them. This is why systemic democratic deficits in local communities represent an argumentation.

Compared to other European countries, England has significantly larger local authorities and a much higher ratio of population per elected councilor [...]. On average, a councilor in England represents around 3300 people, compared to countries with a similar population size such as Italy and France where one councilor represents every 600 and 130, respectively. In terms of local authority size, the average population per council in England is almost 100 times larger than in France (Palese, 2022, p. 58).

Low democratic responsiveness is systemic. If regionalization is adopted wholesale, it will replicate the current democratic deficit that pervades the local authority system in England in the 2020s. The OECD (2020a) informed us that there are four broad types of regionalization, the common denominator among each being the implementation of some form of a transfer of powers from the central government to the regions. A democratic deficit will have taken place if migration levels were to have increased at rates that were not agreed upon by the local people, for example. Regionalization is not homogenous – some people could support or oppose the fluid nature of regionalization. The UK has three different kinds of regionalization in its largest country England (OECD, 2020a). Palese (2022, p. 25) provided the following

description: “There are three forms of sub-national government in England: local authorities, combined authorities, and the Greater London Authority.” It is anticipated that regionalization will increase traffic flows from small towns at a greater level than the current rates in the UK. This could lead to intermunicipal rivalry, as regional areas that were not previously connected would now compete for the same development funding alongside agile, flexible workers. Some form of regionalization ‘safeguarding’ regulatory body would need to be created; this agency would have a set of locally agreed upon regionalization ‘criteria’ that would have to be implemented in order to protect smaller regional areas from being deprived or blighted (Regan et al., 2021, p. 41).

Participatory practices and digital gamification can be introduced by posting a local authority online forum dashboard. People would be free to interact with the online dashboard in the comfort of their homes, thus increasing civic participation; such a gamified participation could be used to decide the subject of an annual local referendum for an area. Constituents would indicate their support of, for example, an environmental traffic-calming scheme or agree to accept or choose to challenge an asylum-seeker resettlement proposal or re-open a footpath by awarding tokens to the various sponsors of each suggested local referendum subject. Each initiative’s scores would be constantly available on the public online forum dashboard, which would also act as an online blackboard where people can publicly express their views. This form of participatory practice and gamification would help increase civic engagement and democratic participation (Romano et al., 2022). A local authority’s partnership board with local residents and non-state stakeholders would increase low democratic responsiveness by making local politics more relevant to people’s everyday lives – more engaging, more interactive, more fun, and more user-friendly. In China’s mode of a participatory turn, citizens can post their views on an electronic bulletin board regarding proposed urban regeneration schemes, along with suggesting alternatives (Chen W. et al., 2022). There are numerous e-participation tools in democracies and non-democracies that have a mix of benefits and a basket of problematic challenges.

Aichholzer and Rose (2020) found that deliberative digital tools have made little impact on decision-making. From a participatory turn and gamification perspective, e-participation can include e-information, e-deliberation, e-campaigning, e-consultation, e-petitions, e-participatory budgeting, and e-voting (Aichholzer and Rose, 2020). Trust has been found to be a factor that influences the effectiveness of e-participation in democracies (Aichholzer and Rose, 2020). When consultation regards services that a community wants, public trust increases.

## PARTICIPATORY RESEARCH REAWAKENING OF LOCAL COMMUNITIES

There are different ways of knowing which need to be considered when studying cases of the gamification of urban policy (Krath et al., 2021). Krath et al.’s ‘Research on Gamification’ study (2021) informed us about the cognitive aspects of gamification in enabling people to participate in problem-solving. With this gamification utility, improved learning, and mental agility, people are now able to understand that different members of society have

differing needs and values. People in local communities may view the cultural, economic, political, and social aspects of their community with significant local attachment. People might view pavement cafes and small public spaces to watch dance and perform music as important parts of their community (Zan, 2021). This community attachment applies; even though they themselves do not directly participate, they recognize the social benefits that exist for the people who do. Participatory research (PR) can identify the social aspects of urban design, policy, and planning projects that may not be apparent when using normative assessment criteria (Zan, 2021).

An urban planning democratic deficit can be avoided by ensuring that the local population has a 'consciousness' of the numerous issues that surround consultation, democracy, and knowledge-transfer (Constantinescu et al., 2020). Consciousness is based on the premise that the way knowledge is produced changes the awareness and perspective of those people who are involved in participatory urban-planning projects. One effect of the Constantinescu et al. (2020) interpretation of consciousness is that people become aware of the power relationships that surround them. The relationships among knowledge, action, and consciousness are quite complex and clearly have a role in critical resource allocation. A key power relationship in the gamification of participation is when the dominant ideology sets the agenda as to what should be considered to be valid knowledge, what is relevant, what the community priorities are, and what people's values should be.

Hassan and Hamari's 'Gameful civic engagement' study (2020) harmonizes with Constantinescu et al. (2020) by also discussing consciousness. The discourse is from a self-consciousness perspective that can inhibit people from challenging power relationships. For gamification and participatory practices to work well in urban planning, people must be enabled, self-aware, and conscious of other people's views in the community. People with a consciousness that is developed through participation are able to be critical about state-sourced information and obtain non-government knowledge instead. State-sponsored information could be bound up with colonialism or entangled by blinded, preordained, paradigmatic, and hegemonic dogma that only recognizes a limited source of knowledge (Hovde et al., 2021). There needs to be a shift in the balance of power: co-production from different ways of knowing should be proactively sought after, taken seriously, and responded to by government officials. There is a sense of self-realization and enlightenment; people are now enabled to influence the psychological, psychosocial, and conceptual boundaries to re-imagine what is possible (Constantinescu et al., 2020). Accompanying this self-realization is a self-determination where people with a consciousness develop a sense of agency that provides them with the 'motivation' for civic education and engagement (Nadi-Ravandi and Batooli, 2022; Sailer et al., 2017). Thus, people are able to produce knowledge that communicates their priorities, thus developing a different way of assessing community identities and values. In this sense, Constantinescu et al. (2020) introduced the concept of democratization by the stakeholder development of co-produced knowledge; this is an outcome of participatory practices.

PR focuses on the co-production of knowledge through partnerships between urban regeneration stakeholders and residents with trans-local knowledge and expertise (Vaughn and Jacquez, 2020). PR emphasizes democratization by direct engagement to deliver a local people's perspective. PR is especially useful in urban design (Lawson et al., 2022, p. 19)

where stakeholders are involved in the research process. Normally, research processes treat local stakeholders as arm's-length participants whom they then subject to various quantitative, qualitative, analytical, and methodological tests (Vaughn and Jacquez, 2020). In PR, people are much more equal (Anderson et al., 2021). PR analyzes the shared lived experiences of different groups of people who are all equal with differing views of community values. It "emphasizes participation in processes *with* others rather than research for researcher's sake conducted *on* people/communities" (Vaughn and Jacquez, 2020).

Gamification can be defined as the use of any analog (usually digital audio and a video game) that is used by people to engage in a non-game social activity (Tseng, 2022). There is rule-based gamification where the rules of the game are set at the start. Then, there is reward-based gamification where players are given some form of token or badge for performing additional tasks. Krath et al. (2021) articulated how social gamification can enable social comparisons and "nudge users towards guided paths" of relevance to their community (Krath et al., 2021, p. 1). Auf et al. (2021) informed us that "another commonly used technique for influencing user behavior is the use of nudge theory or behavioral economics to create indirect reinforcement" (p. 1648). Mamede et al.<sup>1</sup> (2021) harmonized with Krath et al. (2021) regarding the fact that gamification is a "promising persuasive strategy" for effecting behavioral change. Krath et al. (2021) and Mamede et al. (2021) also chimed in by focusing on the social comparison and social support aspects of gamification. I argue that the analyses of Krath et al. (2021), Mamede et al. (2021), and Auf et al. (2021) suggest that gamification can be regarded as a form of a behavioral nudge process. In such processes, rewards are used for encouraging societally beneficial behavior and decisions. In such a context, "gamification and digital engagement practices are widely used in spatial planning and urban design for various reasons" (Mosquera and Pagano, 2021). Digital handset games encourage democratization, require decision-making, and encourage cooperation and compromise. Little specific knowledge is required, which enables wider participation by people who normally choose to stay home. A clear benefit of gamification is its cost effectiveness; it is significantly cheaper to deliver urban design consultation exercises online with people who participate from their own homes (Muehlhaus et al., 2022). Gamification enables the adaptation of experimental projects that can be adjusted to accurately reflect the local conditions that are unique to a particular area (Galeote et al., 2021).<sup>2</sup>

## UNITED KINGDOM PARTICIPATORY GAMIFICATION CASE STUDIES

The COVID-19 global pandemic has brought the importance of participatory practices and gamification to the fore: enforced COVID-19 mitigation practices have informed us that urban-planning consultation must include a sufficient variety of consultation mechanisms. This is to ensure that most people are able to interact with consultation mechanisms to be able to

---

<sup>1</sup> Mamede et al.'s study (2021) discusses the use of physical nudges alongside a web-based gamification app to promote changes in health behavior. This study can be used in urban-planning community consultation.

<sup>2</sup> Galeote et al.'s 'Gamification for climate change engagement' study (2021) discusses how 'increased situation awareness only leads to action if certain conditions exist.' This is a form of a unique local condition that is present in a particular area (p. 19).

give their informed consent to any suggested urban developments. COVID-19 has identified that being aware and conscious of different stakeholder's priorities and self-consciousness are crucial in implementing effective local consultation (Constantinescu et al., 2020; Hassan and Hamari, 2020). Lekić Glavan et al.'s 'COVID-19 and City Space: Impact and Perspectives' study (2022) discussed the profound affect that COVID-19 has had on urbanism. It has not been possible to get uniform data on the effect of COVID-19 on urban development; this is because COVID-19 measures have not been applied in the same way in different countries, thus limiting the information. "In the following months and years, it will be difficult to assess various changes to develop urban planning and design in the post-COVID-19 world" (Afrin et al., 2021, p. 1).

The differences in COVID-19 responses have been non-uniform, both internationally between countries and on an intranational basis within a single country. The effect of these differences has resulted in a paucity of country-specific urban-design studies from European countries (including the UK). "Therefore, for a comprehensive study of the impact of the COVID-19 pandemic on urban space, it is necessary to conduct a broad review as is performed in this study" (Lekić Glavan et al., 2022, p. 2). In their 'Cities Policies Responses' study (2020b), the OECD collated policy activity and causal factors that have influenced urban-design decision-making. The OECD discussed how Bristol, UK, developed a 'One City Approach' – a strategic partnership to deliver its COVID-19 program. The 'One City Approach' involved multiple stakeholders applying participatory practices for consultation and discussion. Interactive workshops were used to inform the decision-making process (OECD 2020b).

Davidova et al.'s 'Co-De | GT: The Gamification and Tokenisation of More-Than-Human Qualities and Values' study (2022) discussed an urban mobile software application. Co-De | GT was used for community engagement and consultation participatory turn purposes in Grangetown, Cardiff, in Wales, UK. Grangetown is a very poor area of the UK whose population faces education, health, and poverty challenges. Grangetown is located in an important biodiversity corridor that is threatened by growing urbanization, from connecting areas that are also near Cardiff. Grangetown needs some form of mechanism that can accurately heed human and non-human stakeholders (Davidova et al., 2022). The use of Co-De | GT-linked gamification with a tokenization scheme helps contextualize climate change and other aspects of protecting Grangetown's biodiversity. A common theme of role play where stakeholders don the clothing of different stakeholders to their own personas delivers an element of *verstehen*<sup>3</sup> to the participatory turn. For example, people get the opportunity to see how institutional failures to work in partnerships can put various parts of Grangetown's biodiversity at risk. There are clear societal benefits, as non-human stakeholders are more readily understood, increasing the climate change impetus (or cultural imperative) to sustain the environment (see also Velenturf and Purnell, 2021).<sup>4</sup> Co-De | GT introduced tokenization when it was implemented in Georgetown in the form of some bitcoin cryptocurrency as community participation progressed (Davidova et al., 2022). Like most digital games, Co-De | GT

---

<sup>3</sup> 'Verstehen' is the research method of asking various research participants and/or stakeholders during consultation exercises to put themselves in the other person's shoes.

<sup>4</sup> Velenturf and Purnell's 'Principles for a sustainable economy' study (2021) resonates here on a number of non-human fronts to include cultural and environmental necessities.

can be adapted so that the tokenization is reward-based gamification with a societal benefit. Community engagement with the app should not result in any form of financial gain for an individual participant. Co-De | GT can be designed so that suggestions that support non-human stakeholders (for example, soil erosion or wildfire prevention) receive the most tokens. Gamification and tokenization can help introduce the public to key concepts; for example, agenda setting, bureaucratic gatekeeping, lack of accountability, local ownership, and transparency (Pavlopoulou, 2021). Tokenization can help participants develop their own personas and pursue a particular community issue that is of interest to them. Co-De | GT is a medium for participatory practices, as a community can demonstrate what its priorities are in its level of engagement with the app. Participants' choices of tokenization reflect what they value most, and gamification reveals a community's desires, wants, and needs (Robinson-Yu, 2021).

Cavada's 'Evaluate Space after COVID-19: Smart Cities Strategies for Gamification' study (2022) discussed the impact of COVID-19 on the urban environment. Cavada's study focused on three case study areas: retail, roads, and parks. There is a discussion of gamification practices in urban space, using examples of locating spaces to practice social distancing or healthy exercise outdoors (see also Lu and Ho, 2020, p. 5).<sup>5</sup> The findings are collated on a computer app that can be downloaded and accessed on a digital device (typically one's mobile phone). Effectively gamification has delivered a smart city strategy that enables people to find green open spaces within walking distances of where they live. Cavada (2022) chimed in with both Afrin et al. (2021) and Lekić Glavan et al. (2022) in observing limitations in the literature. For example, there has been an inadequate recording of rates of homelessness in some urban areas before 2019. Similarly, transient migration rates were also not recorded frequently enough up until the end of 2019. Societally, we are not in the position to do a longitudinal study of the effect of COVID-19 on the health of the local population or on urban planning systems: "we do not have years of study and limited time-based data. We will now explore the current literature on the broader implications of COVID-19" (Cavada, 2022, pp. 1–2). When conducting an evaluation of the impacts that COVID-19 has had on the urban environment, Cavada suggested using a combination of four critical lenses to conduct smart research. These four lenses were economy, environment, governance, and society. The impact of COVID-19 needs to be considered from the angle of its implications for the urban environment, health, and the way people live their lives (Cavada, 2022). A game can be designed to consider urban-design and -planning governance alongside an unrelated but societally important feature (Gomes et al., 2022). Gamification has enabled people to use retail areas and parks in different ways, thus developing their social skills. A gamification app can also act as a location finder: it is able to advise participants of the safest route (roads) to navigate from their current locations to safe spaces for social distancing (parks) (Chen D. et al., 2022). In keeping with Davidova et al. (2022), Cavada's (2022) smart city strategy can be adapted

---

<sup>5</sup> Lu and Ho's 'Exploring the Impact of Gamification on Users' Engagement for Sustainable Development' study (2020) discussed the Nike Run Club (NRC) mobile app. Gamification and urban health are manifest, as the NRC app 'allows users to personally monitor and record their workouts and socially share and compare accomplishments' (Lu and Ho, 2020, p. 1). Gamification has motivated users to use the NRC app, resulting in improved urban health and social distancing during the COVID-19 pandemic.

to find specific kinds of biodiversity. The mobile app can act as a digital community audit, enabling people to find the shortest routes to their nearest libraries or post offices.

Typically manifest in board games, analog gamification is as valuable as digital games. Robinson et al.'s 'Using games in geographical and planning-related teaching' study (2021) discussed two board games that are used in the UK's planning process. These analog games equip students to address real-world problems in a different way to how a digital game would transfer urban-design knowledge. 'Participology' is a participatory learning game that was devised by Birmingham City University and was based on a fictitious United Kingdom (UK) rural-urban fringe area (Robinson et al., 2021). Players roll a die or dice that determines a particular urban-design scenario, which can change depending on what the die or dice display. Players who can be student urban planners answer questions that address issues that are raised by the die or dice-decided scenarios. The given answers enable urban renewal students to explain their visions for the rural-urban fringe area if their planning proposals are accepted (Tzortzi et al., 2022). Hybrid versions of 'Participology' have been used in urban-design and planning consultations with the public in the UK. Members of the UK public have been able to consider the bases, contexts, and impacts of the planning proposals. Once consulted, the participatory turn reveals different ways of knowing and discussing alternative set of values and priorities that have not previously been considered by urban designers (Hidalgo et al., 2021; Puttkamer, 2020). This is public input, different perspectives, and priorities that the planners can negotiate with the residents in the rural-urban fringe area.

Urban-design practitioners, planning students, and the public all benefit from 'Participology' by being able to individually reflect on the multi-positions that often exist in participatory urban-design consultation with multiple stakeholders (Tewdwr-Jones and Wilson, 2022, p. 236). 'Geogopoly' is an upscaled version of 'Participology' that was created by the University of Salford. One of the aims of 'Geogopoly' was to develop urban-design students so they can understand how the UK planning system works. Students were able to see the negative sides of various state and non-state urban-design activity such as guerrilla gardening or compulsory purchase orders. Such enlightenment came from interacting with 'Geogopoly,' which helped students acquire critical-thinking and decision-making skills (Robinson et al., 2021, p. 7). 'Participology' and 'Geogopoly' are quite flexible in the subjects that they can analyze. These games can be adapted to devise social-distancing solutions in temporary homeless shelter provisions in response to future pandemics (Drill et al., 2022; Rodriguez, 2022). 'Participology' and 'Geogopoly' have clear participatory gamification benefits even though they are unable to include decision-maker accountability or recreate real-life power relationships (Robinson et al., 2021).

## CONCLUSION

The UK is beset with democratic deficit problems that affect how urban-planning processes work. Palese (2022) articulated the UK's perennial problem of embedded democratic deficits in its local community decision-making processes. People want to engage in

community issues in their local areas but often find the experience disempowering and off-putting (see Anderson and Rainie, 2020).<sup>6</sup> What local people need are user-friendly modes of participation that are simple to use and transparent. This paper has demonstrated how the participatory turn and gamification are underutilized in urban-planning processes globally (especially in the UK). Regarding UK local governments, restructuring has not really helped – the same old rules regarding the destiny of the local taxation still apply (50% of the revenue that is raised from local business taxes must be sent to the central government) (Palese, 2022). As a part of regionalization, combined local authorities or metro mayors have increased democratization at the local level and decreased the influence of the UK’s central government in Whitehall. Although this is a step in the right direction, locally elected metro mayors are still under the control of the central government (who can veto their decisions). The paper has also explained how regionalization can result in cities or large towns competing with each other for the same resources. Increased use of participatory consultation and/or various forms of gamification are required to engender democratization. The emergence of e-participation in the 21<sup>st</sup> century makes the underutilization of participatory exercises inexplicable in the UK. The absence of gamification is even worse, as many modes of gaming require a hand-held digital device (typically a person’s mobile phone). One of the main advantages of gamification is that it makes community engagement and democratic participation easily accessible. This must advance democratization; the various forms of e-participation and gamification have this utility (the ability to quickly and cheaply increase community awareness).

Participatory research (PR) can help communities realize that they have knowledge, consciousness and agency, independent freedom of thought, and the ability to act (Constantinescu et al., 2020). By engaging in PR (for example, in a participatory budget exercise), the paper discussed the possibility of local people becoming self-aware, self-conscious, and enlightened. This sense of agency of independent thought gives people the necessary self-confidence and personal capacity to discuss urban-planning proposals for their areas. When people consider a budget that involves the addressing of community priorities, they became aware of different ways of knowing. PR enables people to realize that different members of the same community have differing lived experiences and values. These differences could affect how people assess and finance community priorities by way of a participatory budget. If communities engage in PR, there could be a shift in the balance as to who decides what should be considered to be knowledge. Some participants will become conscious to the extent that they can appropriately challenge the perceived assumptions that they feel are being made by urban planners. In this sense, gamification has resulted in co-produced knowledge and the subsequent community buy-in of urban-planning development proposals.

COVID-19 has identified that being aware and conscious of different stakeholder’s priorities and self-consciousness are crucial in implementing effective local consultations (Constantinescu et al., 2020; Hassan and Hamari, 2020). The OECD’s stakeholder approach to analyzing urban development (2020b) harmonizes with Constantinescu et al. (2020) and Hassan and Hamari (2020). The OECD (2020b) discussed how Bristol, UK, developed a ‘One

---

<sup>6</sup> Anderson and Rainie’s Pew Research Center report (2020, p. 49) features analyses from tech experts that are concerned that ‘wealthy interest groups’ control the societal recognition of knowledge. Well-resourced groups can drown out average citizens, ‘as only the loudest or more extreme voices get repeated’ (p. 49). This is a causal factor that can result in a local democratic deficit and spatial injustice.

City Approach’ – a strategic partnership that was meant to deliver its COVID-19 program. The ‘One City Approach’ involved multiple stakeholders applying participatory practices for consultation and discussion. Interactive workshops were used to inform decision-making (OECD, 2020b). Gamification was found to be an ideal policy response during the COVID-19 crisis, as this mode of participation enabled collaborative work while engaging in social distancing. Pockets of participatory practices that were manifested as online civic engagement that used gamification or non-gamified online forums has gained more traction during the COVID-19 pandemic (Gastil and Broghammer, 2021). Gamification and tokenization can help introduce the public to key concepts; for example, agenda-setting, bureaucratic gatekeeping, lack of accountability, local ownership, and transparency (Pavlopoulou, 2021). Gamification is ideal for community communication, consultation, groupwork and problem-solving, and local people’s priorities can be identified. Any social issue can be turned into a game; for example, food bank provision or homelessness. Gamification’s role in the participatory turn is to provide a medium that engenders people’s participation in policy discussions in which they would not normally engage (Fox et al., 2022; Lawson et al., 2022). Games can be designed to award extra points or rewards for certain criteria; for example, feasibility, innovation, or value for money. Studies suggest that reward-based games are more closely aligned to the problem-based learning and co-produced knowledge aspects of PR and the participatory turn (Mazarakis and Bräuer, 2023).<sup>7</sup> Gamification is a medium for participatory practices, as communities can demonstrate what their priorities are in their levels of engagement with the app. Participants’ choices of tokenization reflect what they value most, and gamification reveals a community’s desires, wants, and needs (Robinson-Yu, 2021).

## REFERENCES

- Afrin, S., Chowdhury, F.H., Rahman, M.M. (2021). COVID-19 Pandemic: Rethinking Strategies for Resilient Urban Design, Perceptions, and Planning. *Frontiers in Sustainable Cities*, 3, 668263. <https://doi.org/10.3389/frsc.2021.668263>.
- Aichholzer, G., Rose, G. (2020). Experience with Different Tools in Different Types of e-participation. In: L. Hennen, I. van Kuelen, I. Korthagen, G. Aichholzer, R. Lindner, R. Ojvind Nelson (eds.), *European E-Democracy in Practice* (pp. 93–140). Cham, Switzerland: Springer Nature. <https://doi.org/10.1007/978-3-030-27184-8>.
- Anderson, J., Raine, L. (2020). *Many Tech Experts Say Digital Disruption Will Hurt Democracy*. Washington DC, USA: Pew Research Centre. Retrieved from: [https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2020/02/PI\\_2020.02.21\\_future-democracy\\_REPORT.pdf](https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2020/02/PI_2020.02.21_future-democracy_REPORT.pdf) [16.04.2022].
- Anderson, J., Rainie, L., Vogels, E. (2021). *Experts Say the ‘New Normal’ in 2025, Will be Far More Tech-Driven, Presenting More Big Challenges*. Washington DC, USA: Pew Research Centre. Retrieved from: [https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2021/02/PI\\_2021.02.18\\_New-Normal-2025\\_FINAL.pdf](https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2021/02/PI_2021.02.18_New-Normal-2025_FINAL.pdf) [7.04.2022].

---

<sup>7</sup> Mazarakis and Bräuer (2023) ‘Gamification is Working, but Which One Exactly?’ study, found that progress bar, badges and feedback (all types of reward), motivated people to work harder. When this finding is transferred to urban planning, there is an increase likelihood of collaborative co-production.

- Auf, H., Dagman, J., Renstrom, S., Chaplin, J. (2021). Gamification and Nudging Techniques for Improving User Engagement in Mental Health and Well-being Apps. In: *Proceedings of the International Conference on Engineering Design (ICED2021), 16–20 August 2021, Gothenburg, Sweden* (pp. 1647–1656). Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/pds.2021.426>.
- Bussu, S., Golan, Y., Hargreaves, A. (2022). *Understanding developments in Participatory Governance*. Manchester, UK: Manchester Metropolitan University. Retrieved from: [https://www.mmu.ac.uk/sites/default/files/2022-08/Understanding%20developments%20in%20participatory%20governance\\_Bussu%20et%20al-06-08-22\\_final.pdf](https://www.mmu.ac.uk/sites/default/files/2022-08/Understanding%20developments%20in%20participatory%20governance_Bussu%20et%20al-06-08-22_final.pdf) [23.01.2023].
- Cavada, M. (2022). Evaluate Space after Covid-19: Smart City Strategies for Gamification. *International Journal of Human-Computer Interaction*, 1–12. <https://doi.org/10.1080/10447318.2021.2012383>.
- Chen, W., Cheshmehzangi, A., Mangi, E., Heath, T., Ye, C., Yang, L. (2022). An Analysis of Residents' Social Profiles Influencing Their Participation in Community Micro-Regeneration Projects in China: A Case Study of Yongtai Community, Guangzhou. *Land*, 11, 6, 790. <https://doi.org/10.3390/land11060790>.
- Chen, D., Bucchiarone, A., Lv, Z. (2022). MeetDurian: Can Location-Based Games be Used to Improve COVID-19 Hygiene Habits? *Games and Culture*, 17, 5, 679–702. <https://doi.org/10.1177/15554120211049578>.
- Constantinescu, T.I., Devisch, O., Huybrechts, L. (2020). Participation, for Whom? The Potential for Gamified Participatory Artefacts in Uncovering Power Relations within Urban Renewal Projects. *International Journal of Geo-Information*, 9, 5, 319. <https://doi.org/10.3390/ijgi9050319>.
- Davidova, M., Sharma, S., McMeel, D., Loizides, F. (2022). Co-De | GT: The Gamification and Tokenisation of More-Than-Human Qualities and Values. *Sustainability*, 14, 7, 3787. <https://doi.org/10.3390/su14073787>.
- Drill, S., Rosenblatt, C., Cooper, C., Cavalier, D., Ballard, H. (2022). The Effect of the COVID-19 Pandemic and Associated Restrictions on Participation in Community and Citizen Science. *Citizen Science: Theory and Practice*, 7, 1, 23, 1–14. <http://doi.org/10.5334/cstp.463>.
- Fox, N., Cambell-Arvai, V., Linqvist, M., Van Berkel, D., Serrano-Vergel, R. (2022). Gamifying Decision Support Systems to Promote Inclusive and Engaged Urban Resilience Planning. *Urban Planning*, 7, 2. <https://doi.org/10.17645/up.v7i2.4987>.
- Galeote, D.F., Rajanen, M., Rajanen, D., Legati, N-Z., Langley, D.J., Hamari, J. (2021). Gamification for climate change engagement: review of corpus and future agenda. *Environmental Research: Letters*, 16, 063004. <https://doi.org/10.1088/1748-9326/abec05>.
- Gastil, J., Broghammer, M. (2021). Linking Theories of Motivation, Game Mechanics and Public Deliberation to Design an Online System for Participatory Budgeting. *Political Studies*, 69, 1, 7–25. <https://doi.org/10.1177%2F0032321719890815> [22.04.2022].
- Lekić Glavan, O., Nikolić, N., Folić, B., Vitošević, B., Mitrović, A., Kosanović, S. (2022). COVID-19 and City Space: Impact and Perspectives. *Sustainability*, 14, 3, 1885. <https://doi.org/10.3390/su14031885>.
- Gomes, A., Agarwal, T., Al-Ragam, A., Alshalfan, S. (2022). Using games for inclusive research and policy design – The case of Kuwaitscapes. *London School of Economics*

- (LSE) *Research Methods*, 3 March 2022. Retrieved from: <https://blogs.lse.ac.uk/impact-ofsocialsciences/2022/03/03/using-games-for-inclusive-research-and-policy-design-the-case-of-kuwaitscapes/> [12.04.2022].
- Hassan, L., Hamari, J. (2020). Gameful civic engagement: A review of the literature on gamification of e-participation. *Government Information Quarterly*, 37, 3, 101461. <https://doi.org/10.1016/j.giq.2020.101461>.
- Hidalgo, E.S., Perello, J., Becker, J., Bonhoure, I., Legris, M., Cigarini, A. (2021). Participation and Co-creation in Citizen Science. In: K. Vohland, A. Land-Zandstra, L. Ceccaroni, R. Lemmens, J. Perello, M. Ponti, R. Samson, K. Wagenknecht (eds.), *The Science of Citizen Science* (pp. 199–218). Cham, Switzerland: Springer Nature. [https://doi.org/10.1007/978-3-030-58278-4\\_11#DOI](https://doi.org/10.1007/978-3-030-58278-4_11#DOI).
- Hovde, S., Smzy, A., Ostern, T.P. (2021). Towards Just Dance Research: An uMunthu Participatory and Performative Inquiry into Malawian-Norwegian Entanglements. In: T. Seppala, M. Sarantou, Miettinen, S. (eds.), *Arts-Based Methods for Decolonising Participatory Research* (pp. 59–80). New York, USA – Oxon, UK: Routledge. Retrieved from: <https://library.oapen.org/bitstream/id/987f2a7a-a27c-4e03-b275-063f2a08103f/9781000392531.pdf> [13.03.2022].
- IfG (Institute for Government). (2022). *Metro mayors*. Retrieved from: <https://www.institute-forgovernment.org.uk/explainer/metro-mayors> [21.12.2022].
- Krath, J., Schurmann, L., von Korfflesch, H.F.O. (2021). Revealing the theoretical basis of gamification: A systematic review and analysis of theory in research on gamification, serious games and games-based learning. *Computers in Human Behaviour*, 125, 106963. <https://doi.org/10.1016/j.chb.2021.106963>.
- Lawson, V., Purohit, R., Samuel, F., Brennan, J., Farrelly, L., Golden, S., McVicar, M. (UK Collaborative Centre for Housing Evidence (UKCCHE) and Community Consultation for Quality of Life (CCQOL) (2022). *Public participation in planning in the UK: A review of the literature*, 29 April 2022, London – Glasgow, UK: UKCCHE and CCQOL. Retrieved from: [https://housingevidence.ac.uk/wp-content/uploads/2022/04/220406-Public-participation-in-planning-in-the-UK\\_v3.pdf](https://housingevidence.ac.uk/wp-content/uploads/2022/04/220406-Public-participation-in-planning-in-the-UK_v3.pdf) [8.05.2022].
- Lu, H., Ho, H. (2020). Exploring the Impact of Gamification on Users' Engagement for Sustainable Development: A Case Study in Brand Applications. *Sustainability*, 12, 10, 4169. <https://doi.org/10.3390/su12104169>.
- Mamede, A., Noordzij, G., Jongerling, J., Snijders, M., Schop-Etman, A., Denktas, S. (2021). Combining Web-Based Gamification and Physical Nudges With an App (MoveMore) to Promote Walking Breaks and Reduce Sedentary Behaviour of Office Workers: Field Study. *Journal of Medical Internet Research*, 23, 4, e19875. <https://doi.org/10.2196/2F19875>.
- Mazarakis, A., Bräuer, P. (2023). Gamification is Working, but Which One Exactly? Results from an Experiment with Four Game Design Elements. *International Journal of Human-Computer Interaction*, 39, 3, 612–627. <https://doi.org/10.1080/10447318.2022.2041909>.
- Mosquera, J., Pagano, G. (2021). Gamification and New Scenarios for Digital Participation: Tools and Methods. Retrieved from: *Cooperative City Magazine*, <https://cooperative-city.org/2021/03/12/gamification-and-new-scenarios-for-digital-participation-tools-and-methods/> [7.03.2022].

- Muehlhaus, S.L., Eghtebas, C., Seifert, N., Shubert, G., Petzold, F., Klinker, G. (2022). Game UP: Gamified Urban Planning Participation Enhancing Exploration, Motivation, and Interaction. *International Journal of Human-Computer Interaction*, 39, 1, 1–17. <https://doi.org/10.1080/10447318.2021.2012379>.
- Nadi-Ravandi, S., Batooli, Z. (2022). Gamification in education: A scientometric and content and co-occurrence analysis of systematic review and meta-analysis articles. *Education and Information Technologies*, 27, 10207–10238. <https://doi.org/10.1007/S10639-022-11048-X>.
- OECD (Organisation for Economic Co-operation and Development). (2020a). Regionalisation in the context of decentralisation reforms. In: OECD, *Decentralisation and Regionalisation in Portugal: What Reform Scenarios?* (pp. 41–64). Paris: OECD Publishing. <https://doi.org/10.1787/fea62108-en>.
- OECD (Organisation for Economic Co-operation and Development). (2020b). Cities Policy Responses. *OECD Briefing Note. Updated 23 July 2020*. Retrieved from: <https://www.oecd.org/coronavirus/policy-responses/cities-policy-responses-fd1053ff/> [5.07.2022].
- Palese, M. (2022). *Democracy Made in England: Where Next for English Local Government*. London, UK: Electoral Reform Society. Retrieved from: <https://www.electoral-reform.org.uk/wp-content/uploads/2022/03/Democracy-Made-in-England.pdf> [10.07.2022].
- Pavlopoulou, Y. (2021). *Methodologies of stakeholders' engagement in circular collaborative ecosystems: Deliverable 3.2*. Leuven, Belgium: Pop-Machina project 821479 – H2020. Retrieved from: <https://pop-machina.eu/project/downloads/D3.2> [5.07.2022].
- Puttkamer, L. (2020). *Gamification in Urban Planning: Participation Through Minecraft*. Retrieved from: <https://www.urbanet.info/gamification-in-urban-planning-participation-through-minecraft/> [14.04.2022].
- Regan, A., Quinn, M., Romaniuk, A., Sampson, S., Stratton, T. (2021). *Devolution and Governance Structures in the UK: Lessons from Evidence*. London: Industrial Strategy Council. Retrieved from: [https://industrialstrategyCouncil.org/sites/default/files/attachments/Devolution%20and%20Governance%20Structures%20in%20the%20UK%20Lessons%20from%20evidence\\_Final%20Version270521.pdf](https://industrialstrategyCouncil.org/sites/default/files/attachments/Devolution%20and%20Governance%20Structures%20in%20the%20UK%20Lessons%20from%20evidence_Final%20Version270521.pdf) [21.12.2022].
- Robinson, G.M., Hardman, M., Matey, R.J. (2021). Using games in geographical and planning-related teaching: Serious games, edutainment, board games and role play. *Social Sciences and Humanities Open*, 4, 1, 100208. <https://doi.org/10.1016/j.ssaho.2021.100208> [3.07.2022].
- Robinson-Yu, S. (2021). *Gamification in Community Forums: Increase User Engagement*. Retrieved from: <https://blog.vanillaforums.com/community/gamification-in-online-communities-incentivize-your-members-and-increase-engagement> [4.07.2022].
- Rodriguez, N.M., Martinez, R.G., Ziolkowski, R., Toliver, C., Young, H., Ruiz, Y. (2022). “COVID knocked me straight into the dirt”: perspective from people experiencing homelessness, on the impacts of the COVID-19 pandemic. *BMC Public Health*, 22, 1327. <https://doi.org/10.1186/S12889-022-13748-Y>.
- Romano, M., Diaz, P., Aedo, I. (2022). Gamification-less: may gamification really foster civic participation? A controlled field experiment. *Journal of Ambient Intelligence and Humanized Computer*, 13, 4451–4465. <https://doi.org/10.1007/s12652-021-03322-6>.

- Sailer, M., Hence, J.U., Mayr, S.K., Mandl, H. (2017). How gamification motivates: An experimental study of the effects of specific game design elements on psychological needs satisfaction. *Computers in Human Behaviour*, 69, 371–380. <https://doi.org/10.1016/j.chb.2016.12.033>.
- Sandford, M. (2022). *Local Government in England: structures*. House of Commons Library, Summary Note 07104, 18 June 2022. Retrieved from: <https://researchbriefings.files.parliament.uk/documents/SN07104/SN07104.pdf> [3.07.2022].
- Tewdwr-Jones, M., Wilson, A.. (2022). Co-Designing Urban Planning and Innovation Using LEGO® to Facilitate Collaboration, Participation and Ideas. *Urban Planning*, 7, 2, 229–238. <https://doi.org/10.17645/up.v7i2.4960>.
- Tseng, Y. (2022). Rethinking gamified democracy as frictional: a comparative examination of the Decide Madrid and vTaiwan platforms. *Social & Cultural Geography*, 1–18. <https://doi.org/10.1080/14649365.2022.2055779>.
- Tzortzi, J.N., Guatia, L., Kouzoupi, A. (2022). Sustainable Strategies for Urban and Landscape Regeneration Related to Agri-Cultural Heritage in the Urban-Periphery of South Milan. *Sustainability*, 14, 11, 6581. <https://doi.org/10.3390/su14116581>.
- Vaughn, L., Jacquez, F. (2020). Participatory Research Methods – Choice Points in the Research Process. *Journal of Participatory Research Methods*, 1, 1, 1–14. <https://doi.org/10.35844/001c.13244>.
- Velenturf, A.P.M., Purnell, P. (2021). Principles for a sustainable circular economy. *Sustainable Production and Consumption*, 27, 1437–1457. <https://doi.org/10.1016/j.spc.2021.02.018>.
- Zan, L. (2021). *UNCHARTED Project: D3.1 Report on WP3 case study (selection)*, 24 December 2021. Bologna, Italy: University of Bologna. Retrieved from: <https://uncharted-culture.eu/wp-content/uploads/2022/01/D3.1-Report-on-WP3-case-studies.pdf> [9.03.2022].

Submitted: 10.10.2022

Reviewed: 10.11.2022

Accepted: 18.11.2022

Published online: 30.12.2022