

Editorial

## The Future's Not What It Used To Be: Urban Wormholes, Simulation, Participation, and Planning in the Metaverse

Andrew Hudson-Smith<sup>1,\*</sup> and Moozhan Shakeri<sup>2</sup><sup>1</sup> The Bartlett Centre for Advanced Spatial Analysis, University College London, UK<sup>2</sup> Department of Urban and Regional Planning and Geo-Information Management, University of Twente, The Netherlands

\* Corresponding author (a.hudson-smith@ucl.ac.uk)

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### Abstract

In this editorial linked to the thematic issue on “Gaming, Simulations, and Planning: Physical and Digital Technologies for Public Participation in Urban Planning,” we explore how urban planning has been, arguably, slow on the uptake of modern technologies and the move towards the next media revolution: The Metaverse is now on the horizon. By artfully pushing technological, cultural, and social boundaries in creating virtual environments, games and gaming technologies have presented interesting opportunities and challenges for the planning profession, theory, and education over the years. This thematic issue documents a wide range of innovative practices in planning enabled by games and gaming technologies. It attempts to open discussions about the way we conceptualize and treat new media and technologies in planning. By providing a wide range of examples, from non-digital games to gamified systems, interactive simulations and digital games, the issue shows that the lack of adoption of these practices has less to do with their technical possibilities and more to do with the way we understand tools and their added value in the dominant narratives of planning. As we note at the end, planning should be at the forefront of these technologies, not embracing technologies for technologies sake but because it should, as a profession, be leading the way into these new environments.

### Keywords

gaming; Metaverse; public participation; simulation

### Issue

This editorial is part of the issue “Gaming, Simulations, and Planning: Physical and Digital Technologies for Public Participation in Urban Planning” edited by Andrew Hudson-Smith (University College London) and Moozhan Shakeri (University of Twente).

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“Good afternoon, ladies and gentlemen. It is with great pleasure that I introduce you to the magic of television...” With those words, Leslie Mitchell introduced Britain’s first high-definition public television programme from Radiolympia. The date was 26th August 1936, broadcasting to the estimated 100 television sets available in the UK (Marcus, 2015). In nine years (1947–1955), television ownership increased from 80,000 households in London to nearly 15,000,000 all over the UK (Emmett, 1956). Rapid growth in broadcast media leading to mass adoption by the public and the professions is characteristic of successful new formats. Tim Berners-Lee, a

British scientist, invented the World Wide Web (WWW) in 1989, while working at CERN. The Web was originally conceived and developed to meet the demand for automated information-sharing between scientists in universities and institutes around the world (CERN, n.d.). This demand by universities and institutes quickly developed into an all-encompassing platform that is arguably, only 40 years later, taken for granted in a comparable way to television. Our understanding of technologies and communication media and how they impact our life has significantly changed since the introduction of TV and even since the introduction of the WWW. Particularly

the works of media ecologists and their study of media not only in their environment (in relation to the context in which they are used and their precedent media) but as an environment (capable of introducing new habits of perception, forms of understanding and monopoly of knowledge) have introduced new lines of enquiry into how communication media and technologies impact our social, economic relations as well as our cognitive abilities (Strate, 2004).

Urban planning, as Hudson-Smith (2022) suggests in this thematic issue on “Gaming, Simulations, and Planning: Physical and Digital Technologies for Public Participation in Urban Planning,” has been, arguably, slow on the uptake of modern technologies and the move towards the next media revolution on the horizon; what can be described as the Web 3.0, characterised by decentralised technologies (Edelman, 2021), is following a similar path. The Metaverse is, perhaps, for the moment, one step too far for urban planning. However, hand in hand with digital twins and the rise of collaborative online systems, the Metaverse is coming, in the same way as television and the WWW, and it needs a “digital” urban planning system to embrace it. The time is now, we would argue, to be at the forefront of the next revolution in urban planning, powered by, as we explore in this thematic issue, gaming concepts, ideology, and technology, and with these wider participation.

With this in mind, it is important to note that, to date, innovative and critical takes on media in planning have often been pushed aside by the dominant narratives in planning that understand media as entities merely in service of the planning processes than a key player in participation and policy development: From Castells’ writings in the late 1980s (Castells, 1989), exploring the web of interactions between the process of technological change, the process of socio-economic restructuring, and the new urban and regional processes, to Batty’s seminal work in the late 1990s on the “computable city” (Batty, 1997). Onwards to the works of Sandercock and Attili (2010) on multimedia explorations in planning and beyond there have been efforts to find a place for the conceptualisation of media and technologies beyond their mere instrumental value in the service of planning processes.

Games are in a unique position among other media and technologies in planning. The history of their use in planning is as old as planning profession itself. Their use as support tools for planning process is justified in different planning paradigms; they are used as a simulation and testing technology in the early days and their use has also been explored in the communicative turn in planning. They have been discussed as educational tools, simulation technologies, deliberation support tools, and storytelling tools. At the same time, they are of the most known technologies to the public. In 1997, Batty wrote: “Reportedly, SimCity was the most popular-selling computer game in the UK at Christmas 1995, with many more people being exposed to the game than there are profes-

sionals concerned with the study and planning of cities” (Batty, 1997, p. 164).

Gaming technologies have always been at the forefront of technological advances for visualisation and storytelling and they have been at the heart of emerging virtual environments and now the cities which are starting to form in the Metaverse and its iterations, as explored by Delaney (2022) in this issue and his urban planning work in Minecraft. Even in their non-digital format they involve levels of abstraction, symbolizing, and storytelling that is unlike other media. Having story as their core, they always include forms of storytelling involving creation of virtual spaces, societies, and cities.

Adoption of games, gaming technologies, and game thinking introduces interesting challenges for planning as a profession and as a way of thinking about the built environment. There are well-documented records of attempts to adopt games in planning in the early 1960s (Duke & Schmidt, 1965). They reveal not only the opportunities that games were then presenting for simulation and scenario building and testing but also discontinuities that they presented. One of the biggest deployments of gaming in planning programs that was tested in the US was halted as it could not produce data on its direct impact and planners found it “difficult to hold to time schedules because the players became so involved in the game that they wanted to continue interaction phases far longer than ideal schedules allowed” (Light, 2008, p. 367).

In 1997, Batty argued that the future of technologies in planning is about not only examining the ways in which computers are changing the methods for understanding but also the ways they are changing the structure and dynamics of the city itself. Building on this, the thematic issue is an attempt to provide such a comprehensive look at games as medium and technology and their use in and impact on planning, to document the opportunities and discontinuities that games have introduced and continue to introduce to planning as a discipline and profession.

Beyond the future looking and arguably all-encompassing incoming Metaverse, the issue includes reflections on how games can be adapted for use in participatory planning practices. Tewdwr-Jones and Wilson (2022) and Delaney (2022) argue for using games as complementary participatory methods to other mixed-method approaches in social science and discuss how already-available technologies and games can be used as part of collaborative decision-making processes. Tewdwr-Jones and Wilson (2022) discuss the use of LEGOs for the co-creation of innovative projects and Delaney (2022) presents an innovative use of Minecraft as a participatory support tool for urban design and planning projects. Tan (2022) discusses how a network of games can be created by connecting games to other available datasets and games. Raghothama et al. (2022) highlight the impact choice of technology (analogue vs. digital) has on user experience in terms of learning, agency, and exploration. Hügel and Davies (2022) discuss how

games can be used to empower young people to understand and engage with the complexities, uncertainties, and processes of climate adaptation planning. Finally, Avendano-Urbe et al. (2022) discuss how the use of games in participatory modelling can promote holistic system understanding among stakeholders and increase ownership of modelling techniques.

The issue also includes publications on how games, gaming technologies, and gaming frame of mind can change the way we think about planning and its processes. Reflecting on more than a decade of designing and testing virtual worlds, as noted, Hudson-Smith (2022) discusses the possibilities of rethinking digital planning considering existing and future Metaverses. Ampatzidou et al. (2022) argue for co-designing processes as a way of sharpening problem understanding in planning processes. Roumpani (2022) presents how procedural modelling techniques can be used to create and communicate informed 3D urban scenarios, and by reviewing the history of interactions between game studies and planning, Shakeri (2022) explores how game studies' concepts are rendered useful in planning and how planning theory has dealt with disagreements and discontinuities presented by games.

The works in this thematic issue document the challenges of designing and adopting games as part of planning practices as well. These challenges partly are technological or related to resource availability and partly are conceptual. The conceptual challenges are what media ecologists call discontinuities presented by a new media into its environment. Fox et al. (2022), Hügel and Davies (2022), Delaney (2022), and Ampatzidou et al. (2022) all discuss the challenges of evaluating the usefulness and outcome of the designed games and gamified system as well as balancing the meaning and the playful elements of the games, challenges that will not be overcome by new advanced technologies.

Although the thematic issue is focused on games, it attempts to open discussions about the way we conceptualize and treat new media and technologies in planning. Innovative practices around the design and use of virtual worlds, gamified systems, and games have been around in planning for over decades. However, they have never managed to find a functional place in planning practice, theory, and education. By providing a wide range of examples, from non-digital games to gamified systems, interactive simulations, and digital games, the issue shows that the lack of adoption of these practices has less to do with their technical possibilities and more to do with the way we understand tools and the dominant narratives of planning. The digital future of planning, we argue, is about addressing and embracing the discontinuities that these technologies present for planning theory and practice rather than dismissing them. Planning should be at the forefront of these technologies, not embracing technologies for technologies sake but because it should, as a profession, be leading the way into these new environments. In twenty years (2042) we

will be able to look back through the wormhole between the real and virtual universes and hopefully mark the point at which the planning profession entered and led the way into the Metaverse.

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### Conflict of Interests

The authors declare no conflict of interests.

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### About the Author



**Andrew Hudson-Smith** is professor of digital urban systems at the Bartlett Centre for Advanced Spatial Analysis, University College London. His research focuses on real-time data, virtual environments, and the Internet of Things.



**Moozhan Shakeri** is a researcher at ITC, the Faculty of Geo-Information Science and Earth Observation of the University of Twente. Her research lies at the intersection of social sciences, media studies, and political science and focuses on critical analysis of instrumentalization and adaptation of various tools and communication media as part of the decision-making processes. She is particularly interested in translating theoretical ideas into design specifications of participatory tools and delineating digital and non-digital media's added value for various decision-making processes. Before joining ITC, she worked as an associate researcher at Newcastle University.