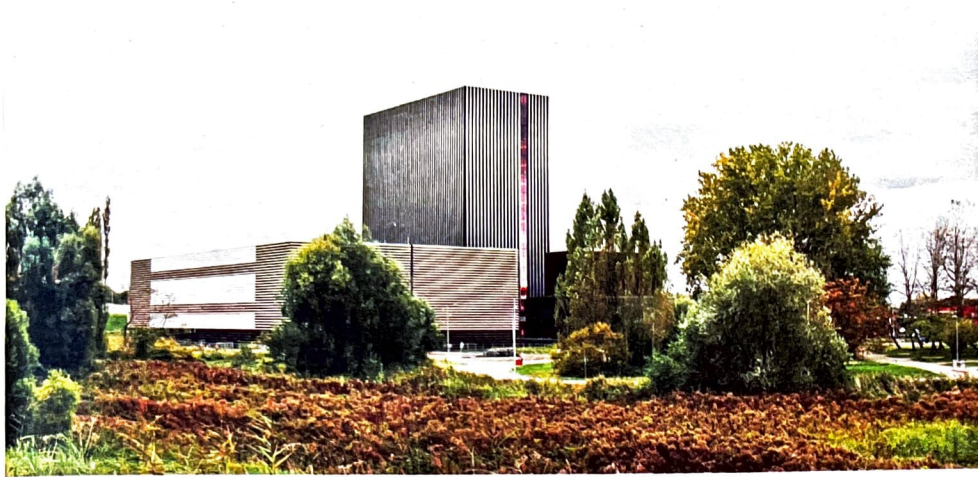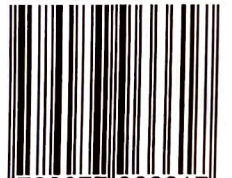# VOLUME 51

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CITIES MAKING PLATFORMS MAKING CITIES: FOR BETTER OR WORSE? BEN SCHOUTEN, MARTIJN DE WAAL, ADAM VAN HEERDEN

IN A MULTIDISCIPLINARY ENVIRONMENT, THE AMSTERDAM UNIVERSITY OF APPLIED SCIENCES, TOGETHER WITH EINDHOVEN UNIVERSITY OF TECHNOLOGY, IS CURRENTLY STARTING A PHD RESEARCH PROGRAM THAT LOOKS AT THE POTENTIAL FOR SMART TECHNOLOGIES TO EMPOWER CITIZENS (STEC). THE PROJECT IS FUNDED BY THE NETHERLANDS ORGANIZATION FOR SCIENTIFIC RESEARCH (NWO). THE FOUNDERS BEN SCHOUTEN AND MAARTEN DE WAAL, TOGETHER WITH THE FIRST PHD CANDIDATE ADAM VAN HEERDEN, EXPLAIN THE NECESSITY AND GIVE A SNEAK PREVIEW OF THEIR FUTURE WORK.

New protocols please?

The ubiquity of smart technologies based on sensors, data and artificial intelligence, combined with the pervasiveness of their protocols for interaction, implores us to reflect on whether this is the city or society we want. Many have pointed out that numerous 'smart city' approaches have been rather top-down, technocratic examples of solutionism, serving the interests of corporations and governments rather than actually improving the quality of life for citizens. There has been a growing recognition from cities of the need for reconceptualizing 'smart city' discourses, which typically foreground technology and efficiency at the expense of community and sociability. Some policy makers have referred to this as the 'citizen-centered smart city', involving participation and other strategies for co-creation with citizens, where the content, affordances and interfaces of these platforms are designed with and by citizens.

This not only requires a different understanding of design but, more importantly, new models are also needed for urban development and governance that effectively bring top-down and bottom-up agents together. Within these solutions, democratically elected governments set the legal and normative agendas, and also provide opportunities for a range of actors to act within these frameworks and to appropriate the city and its new infrastructures.

But are they smart?

While digital platforms open up opportunities, such as the potential to develop bonds with people you've never physically shared a space with, or to organize groups around shared interests (such as sustainable fashion or green cities) that may have material outcomes, they also constrain our ability to appropriate and be creative with our use of a platform within the rigid frameworks afforded to us. Platforms designed 'for' us preclude this questioning of our cities and governance structures and instead perpetuate the status quo, reinforcing our sense of self in the image of these proprietary frameworks, without any opportunity for questioning the purveyors of this image. Bottom-up appropriation of these technologies is necessary if we are to utilize the 'wisdom of the crowd' and generate civic trust in city-making processes. Investigation is needed to explore how we can connect the design and management of new infrastructural 'smart city' technologies, with the new paradigms for city making (in the domains of urban planning and governance) which seek to combine top-down and bottom-up strategies.

In the Smart Technologies Empowering Citizens research project, we will look into media platforms, game-like visualizations, stories and scenarios where a participatory budgeting process is a creative format for organizing a public debate and for neutralizing some of the inherent power imbalances, while helping confrontations to remain constructive. 'Smartness', in this context, relies on the ability to connect multiple agents (both human and nonhuman) in dynamic scenarios that facilitate collective problem-solving and collaborative modification of the urban environment. Smart technologies, in this case, would then be those tools that either enable or encourage networking, collaborative action, and the motivation to engage in city making, rather than optimization according to data of time and place. Smart technologies then give rise to more networked, resilient and autonomous societies, and empower citizens to constructively engage with urban issues and with one another.

Empowering who, and why?

Empowerment — that sounds like a good thing to aim for, but what is it exactly? Empowerment measures are intended to increase the degree of self-determination in people and communities, to enable them to represent their interests in a responsible and autonomous manner. Empowerment enables people to overcome their sense of powerlessness and lack of influence, and to recognize, and eventually use their resources and possibilities. In the context of city making, community empowerment is an intentional, ongoing process, involving mutual respect, critical reflection, caring, and group participation, through which people lacking an equal share of valued resources gain greater access to, and control over, those resources. These conceptual definitions suggest that community participants have an active role in the change process, not only for implementing a project, but also in setting the agenda. The design of smart-city platforms and their interface capabilities is an integral component of this co-creation process, defining the interactions that people can participate in. For example, right now you can't modify the user interface of the amsterdamsmartcity.com platform, or the 'calls to action' that its designers thought were important — and these are mostly centered on broad environmental concerns such as energy, infrastructure, and mobility. Citizen empowerment is often more a by-product, or necessary ingredient, to achieve a greener, more circular economy that has the buy-in of its residents. Similarly, the scope and framing of issues on the smartcitizen.me platform view 'smart' citizens through the lens of smart environmental sensing. Any deviations from this angle simply aren't possible. We are conscripted into working with these platforms in their current guise and within the constraints 'they' selectively impose on our interactions. Empowerment takes on different forms for different people in different contexts. Empowering communities through platforms requires a highly context-specific and population-specific appropriation of these platforms to be possible, in order to reflect the diversity of needs and interests in increasingly heterogeneous societies.

In the Smart Technologies, Empowered Citizens research project, we will work from three design perspectives — participation, argumentation and motivation — as key ingredients of empowerment. Moreover, we think that engagement can only be reached if the scale of decision-making is smaller and users can feel ownership. Play has started to become a central element in these approaches as a mechanism to engage citizens in processes of co-creation. Through gameplay, players create meaning and social bonds. Examples abound of groups of citizens that have turned away from centralized solutions, taking the helm to organize themselves to create ownership and meaning.

Searching for the middle ground?

Addressing the interplay between empowerment, digital technologies, and city making highlights the intersections between top-down formal planning regimes and bottom-up appropriation through social organization. Regarding the positioning of platforms vis-à-vis institutional arrangements of local city administrations, one vision sees cities (and their administrations) as platforms themselves, suggesting that cities should provide the key infrastructural assemblages for these platforms to operate, while an alternative vision values independent 'urban curators' who operate at some distance from city administrations. The latter retains its integrity as a platform for the people, reflective of their needs and interests, and able to be appropriated. Either way, as these platforms play an increasingly prominent role in the making and management of our cities, issues concerning the democratic governance of our cities and the changing relationship between citizens and governments ought to be questioned. Platforms provide new affordances for bottom-up self-organization around common concerns, but not much is known yet about how they might promote this behavior, and how the design of these platforms fits in with larger issues of city making and governance. These questions are especially relevant because they might provide alternative models of ownership, development, and management of these infrastructures, providing more room for citizen initiatives to emerge.

The research project will run for four years and will also look at the societal and cultural consequences. If we consider recent exemplars of self-organizing communities (such as hackerspaces, self-builders, or the maker movement), we observe participants having a stake in specific issues, taking action and creating self-sustaining organizations. However, the research takes place against the backdrop of a broader societal discussion about the changing relationship between citizens and governments. How to reconcile top-down and bottom-up approaches? A number of studies have proposed alternative frameworks that both theorize this current societal situation and serve as new models for urban development and governance, such as 'the improvisation society', 'urban living labs', 'the energetic society', or 'the spontaneous city'. What is needed, these studies claim, is a model for urban development and governance that does bring top-down and bottom-up together, in which democratically chosen governments set the legal and normative agenda, but provide opportunities for a range of actors to act within these frameworks and appropriate the city and its infrastructures.