Urban Space in the Age of Platform Urbanism

Digital platforms already expanded their reach over a broad range of urban services and cemented themselves at the core of urban life by capitalising on their vast troves of data, all of which allowed them to enter partnerships with city administrations and thereby claim ownership of more and more urban space. Considering the increasing entwinement of the digital realm with physical space facilitated by platform urbanism, Internet of Things and advancements in immersive technologies, this research recognises and discusses the importance of key democratic features required to tackle urban challenges in a context-specific way and protect urban space from platform monopolies - open data utilisation and user participation. The purpose of this dissertation is to provide new views on the detrimental nature of digital platforms' urban interventions, as well as to address these issues in the context of the new, spatial or augmented era of the internet - Web 3.0.

Data monetisation occurs through strategic partnerships between digital platforms and city administrations far from the eye of the public

Convenience of virtual shopping and apps transforms the city into an on-demand service regulated by digital platforms

Digital platforms and social web caused many aspects of our lives to move from the physical into the digital realm

Digital platforms extract data online but also from urban space – through sensors, movement trackers, cameras and apps

City as a platform

Digital platforms promise us improved participation but it mostly comes down to extraction of our data from urban space – even though it is our collective data we mostly don't have access to it

Digital platforms operate globally with no capability to understand local context which has a detrimental effect on urban space

Augmented space is digital platforms' next frontier – Web 3.0 or the spatial web where they aim to claim and control even more urban space

Many businesses adopted the business model of digital platforms which lead to a commodification of data allowing it to become a new type of capital

Introduction

Digital platforms responsible for the shift of many aspects of urban life to the digital realm such as the way we work, communicate, shop and learn, increasingly present themselves as optimal structures capable of meeting a wide range of challenges in the urban realm. Platform technologies and data-driven urbanisation are becoming more and more central to urban politics – urban space is a vast source of data digital platforms can extract and process, and they can then create and offer services to that very urban space based on that very data. Digital ecosystems such as Google, Amazon, Facebook and Uber promised us improved access, unprecedented participation and remarkable convenience which allowed them to penetrate into a broad range of services including healthcare, education, public transport, housing and even city planning, earning them a role of quasi-public urban actors. This research zooms in on their democratic promises and discusses the increasing entwinement of the digital realm with physical urban space facilitated by the above-mentioned phenomenon known as platform urbanism. Increased presence of digital platforms in urban space as well as rapid advancements in immersive technologies such as augmented reality call for analyses of their commitments to democratic data-utilisation and user participation – features that eventually always manifest in urban space.

Data utilisation and user participation in the age of platforms

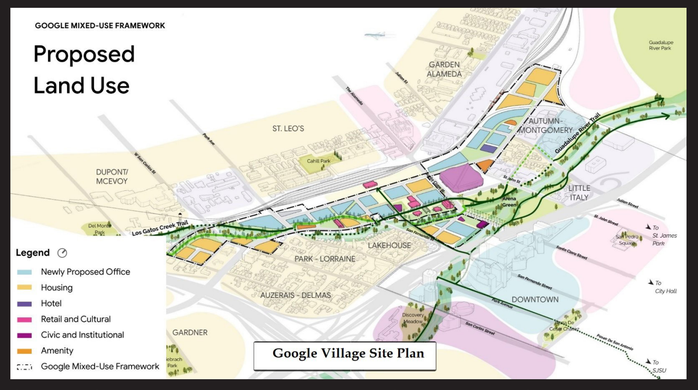
To understand the nature of urban transformation led by digital platforms, it is important to note that it occurs simultaneously in the physical and the digital realm, and perhaps the best way to perceive the connection between the two is by discussing data. Collecting and processing of an enormous amount of data both online and from urban space is one of the fundamental features of digital platforms, and the fact that there are more and more ways to capitalise on that data makes it easier for them to seek strategic partnerships with cities. This phenomenon exposes similarities between platform urbanism and the preceding smart city narrative. Within the smart city discourse, public-private partnerships capitalising on mass data accumulation with corporate interests that control urban platforms received strong criticism. Data is presented to us by digital platforms as a simple tool capable of calculating the solution to almost every urban challenge, from small-scale interventions to city planning. But how can data accurately depict the needs of the city and its residents, especially considering its incapability of understanding local context? Platforms operate globally but urban spaces in which they interfere are extremely context-dependant. Therefore, the inevitable side-effect of data-driven urbanisation is the disconnection between the digital and the physical aspects of urban space. For this reason, more emphasis on citizen participation both online and offline together with a more accessible data utilisation would greatly contribute to facing upcoming urban challenges in a context-specific way. Digital platforms are increasingly perceived as digital public spaces with users being depicted as co-creators of the future and with access to open-data being presented as a technology-enabled path to democracy. However, in the age of platforms and social media but also sensors, movement trackers etc, everyday life is considered as participation. Platforms and tech companies use the idea of participation simply to legitimise their urban interventions. Additionally, the authoritarian structure of these technocapitalist corporations such as Alphabet (Google) and Facebook where a handful of executives and major shareholders make all the decisions also raises questions of plausibility of their democratic promises and consequently, raises concerns about ambitions behind their urban interventions. How can citizens contribute to tackling urban challenges with their ideas and through deliberation instead of just with their data, especially those without access to platform services? The answer might lie in collectivising data but in a way that helps citizens integrate digital platforms to their existent ways of participation, as well as in providing new ways of both online and offline cooperation.

Platform Urbanism in Augmented Space

The ambitions of digital platforms have always included claiming as much urban space as possible. Google plans data-oriented smart districts in cities around the globe and Apple increasingly produces not just new stores but branded town squares. However, the prospect of adding a digital layer onto almost anything opened endless possibilities for platforms' further involvement in urban space and marked the beginning of the internet's new era – Web 3.0 or simply, spatial web. Physical space is limited, but it can accommodate an infinite number of digital layers pinned to the same location. Thus, the entire urban space will be available to digital platforms for any intervention they see fit, which poses a fundamental threat to urban space and culture. In the same augmented space, people will begin to have dramatically different experiences depending on which digital layers they choose to engage with. This opens new questions of ownership such as, who owns the space – those who own the physical land, or the company who owns the digital layers above it? Even though parks, squares, roads etc are void of corporate control, platforms as both providers of infrastructure and content moderators could easily monopolise augmented space and take control over its digital aspect. Additionally, augmenting space with the IoT might exacerbate already well-known issues with the web today such as confirmation bias and feedback loops. Therefore, bringing issues such as importance of citizen participation in platform processes, open data and the engagement of local administrations to public discussion is critical for our cities' future as more and more aspects of the IoT and digital platforms start appearing in material form.

Sidewalk Toronto / Image curtesy Sidewalk Labs, 2019.

Microsoft's Redmond campus modernisation plan / Image curtesy Microsoft, 2018.

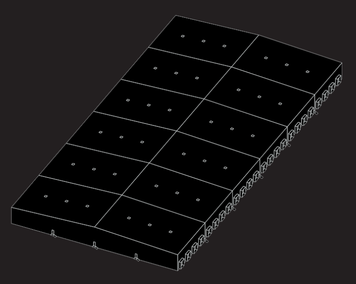


Google's San Jose downtown development / Image curtesy Google Sitelab Urban Studio, 2019.

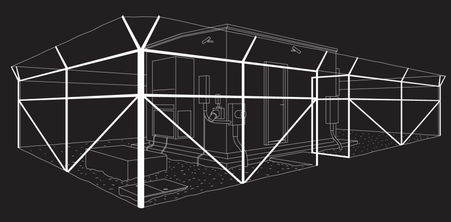
Facebook Willow Village / Image curtesy Facebook, OMA New York, 2018.

Amazon has already expanded to healthcare by launching an online pharmacy and an on-demand healthcare service - Amazon Care, Google unveiled plans for constructing data-oriented smart districts in cities around the globe, Uber is expanding to the public transport and Apple increasingly produces not just new stores but branded town squares - all of these examples prove that platform technologies and data-driven urbanisation are becoming increasingly pervasive and relevant for our cities' futures, especially in the spatial sense. Digital platforms aspire to intervene in urban space as much as possible, which can be seen on the above depicted examples such as Sidewalk Toronto – a declined data-oriented smart district idea for redevelopment of the Toronto waterfront by Google and its sister company Sidewalk Labs, Mirosoft's Redmond campus modernisation which aims to offer many new amenities for residents nearby, Google's San Jose downtown redevelopment which is a prime example of a tech company planing parks, roads, apartmens, concert halls and business premises, and finally Facebook Willow Village which also offers many mixed-use capacities.

On the opposite side, it is important to address the "invisible" aspect of platform urbanism – constantly growing logistics networks comprising data centres, fiber huts, distribution and fulfilment centres (right), all powering the digital world of platforms. If we take a look at their headquarters, all of them have a profound relationship with nature and greenery which together with their promises of reduced environmental footprint make them look like ecologists. On the other hand, their constant spatial expansion and their constantly growing use of resources is not likely to be efficient. Finally, the "flattening" of natural landscapes which occurs constantly in order to build data centres etc also has to be addressed.



Data center illustration



Google's fiber hut