

Decoding the Episteme of Splintering: Urbanism, Infrastructure, and Differential Mobility in a Pandemic Society

A Critical Review of Graham & Marvin's Splintering Urbanism (2001) Two Decades Later

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Abstract: How do cities collapse into zones of extreme privilege for some and hazardous trap-lines for others during a global crisis? Over two decades ago, Stephen Graham and Simon Marvin's seminal book *Splintering Urbanism* delivered a radical warning: modern cities would increasingly fracture into premium, isolated networks for the elite while structurally bypassing and abandoning the urban poor. This critical review article evaluates the enduring validity and contemporary resonance of their socio-technical framework through the crucible of the COVID-19 pandemic. Rather than engineering entirely novel spatial inequities, the global health crisis functioned as an aggressive historical accelerator of deep-seated structural divisions across transportation, digital, and public health infrastructures, effectively weaponizing the precise processes of network unbundling and cybernetic fragmentation predicted at the turn of the millennium. Defending Graham and Marvin's thesis against prominent contemporary counter-critiques, which often misinterpret network fragmentation as merely incomplete development, this paper exposes the violently uneven realities of "differential mobility" and systemic bypass. By dissecting the asymmetrical logistics of pandemic governance, this review demonstrates how elite classes effortlessly weaponized digital shielding, remote labour enclaves, and panic fleeing to safely navigate lockdowns in insulated comfort. Conversely, marginalized populations were structurally trapped by the very same networks. Through a comparative critical analysis, this paper examines the targeted immobility and hyper-surveillance forced upon stranded Indian migrant labourers, precarious gig-economy essential workers, and highly stigmatized queer communities, all of whom faced state-sanctioned containment, biometric tracking, and hazardous viral exposure. Ultimately, this review demonstrates that while the biological virus operated indiscriminately, the underlying socio-technical urban infrastructure remained deeply prejudiced, actively sorting bodies based on capital and privilege. Over two decades later, the splintering urbanism thesis stands entirely vindicated. Infrastructure can no longer be conceptualized as a neutral, democratic civic utility; it is a volatile, heavily contested matrix of socio-spatial exclusion and premium bypass where the ultimate stake for vulnerable urban populations is not merely spatial equity, but physical survival.

Key words: Splintering urbanism, Infrastructural unbundling, Socio-technical networks, Differential mobility, Premium network spaces, Socio-spatial exclusion, Pandemic urban-ism, Digital urbanism, Biopolitics, Marginalized populations.

1. Decoding the Episteme of Splintering Urbanism in a Pandemic

Two decades ago, Stephen Graham and Simon Marvin's "*Splintering Urbanism*" (2001) [1] brought the crucial role of infrastructure in shaping urban society to the forefront. Regarded until then as an apathetic stage or backdrop of complex urban life, the authors shifted networked infrastructure from a passive spectator to an

active participant involved in every facet of urbanism. As described by them, their "athletically interdisciplinary" [1] approach to understanding the fragmentation of the urban ideal discussed various specialities from sociology, politics, philosophy, culture, economics to planning, architecture, geography, history, and governance. This is the very reason that the book has, since then, cemented itself and networked infrastructure in the centre stage of all urban spatial analysis and pedagogy. With

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sociologists like Manuel Castells referring to the book as the “first analytical geography of the network society” [1], there can be no qualms left about its merit.

This essay, thus, does not seek to reproduce the contents of the book or endlessly espouse its ideals but instead to discuss how these have presented in urban society twenty years later, specifically during one of the most far-reaching global ordeals of recent times, the pandemic of COVID-19. The ripples of the pandemic were felt in every facet of networked systems, and they consequently had to undergo rapid transformation to adapt to the circumstance. The essay evaluates the paradigms of access and fragmentation of networked infrastructure that the pandemic triggered and compares it with those predicted by the authors in “Splintering Urbanism” (2001) [1]. While the pandemic had extensive repercussions on a plethora of domains, from transportation, sanitation, healthcare, economy, national and international politics to digital and information sector, environment, production, and consumption patterns, to name a few, discussing the book’s theories in the context of all these domains is beyond the scope of this essay. To facilitate a comprehensive discourse that evaluates “Splintering Urbanism” (2001) and its premise in the context of the pandemic, this essay focuses on the core concepts of the book like unbundling, differential mobility, premium networked spaces, etc. and the way they perpetuated unequal mobility during and after the pandemic using certain networked systems such as transportation and information & digital infrastructure that highlight these patterns. These networked infrastructures are analyzed for their patterns of splintering and their resultant impact on society and civilization, where these align with what the authors of “Splintering Urbanism” (2001) discuss and where they fall short. The essay explores how the principles and axioms put forth by the authors about the underlying prejudices of society and the differential use of infrastructure reflects in the networked infrastructure of cities twenty years later, worsening discrimination even

during a global phenomenon that impacted all sections of society irrespective of class, creed, race, or sex, though the degree of impact varied according to their vulnerability. It discusses this paradigm of differential mobility of several groups, like migrants, queer community, daily wage workers, elites, etc. and their varied experiences in urban society as well as the role of these networked infrastructures in processes like dissemination of information, goods, and the virus itself and their impact on society, economy, healthcare, and welfare.

The book, *Splintering Urbanism: Networked Infrastructure, Technological Mobilities and the Urban Condition* [2], was first published in the year 2001. This was at a time when most debates about the urban condition focused on “point-specific” services and neglected the complex assembly that sustained and influenced these services. Authors and urban geographers, Stephen Graham and Simon Marin, combine their expertise of research on critical social and urban theory of the former and the socio-technical networks and urban restructuring research of the latter, to address some of the key challenges of modern cities. Having previously worked together to co-author the book “Telecommunications and the City”, *Splintering Urbanism* draws on their learning and builds further using empirical evidence of changing relations of networks and develops conceptual understanding of their interrelations. In it they investigate urban society and its functioning with infrastructure at the heart of this venture, to understand the complex, interdisciplinary entity that it is, being dynamically moulded by the interactions between the networked infrastructures that sustain it. The book further evaluates the influence of processes like liberalization, globalization, privatization, industrialization and technological advancements on these networked infrastructures and their subsequent fragmentation and impact on society. While their premise of increased privatization and globalization causing fragmentation of the city may not be novel, it is their feat of establishing a new lexicon itself to

decode this phenomenon that is truly a triumph. The vocabulary they built, or revived, to use infrastructure as the guidepost for analysis has since been an indispensable part of the language of urban theory. The book elaborates the intricacies of infrastructure in breeding discriminatory access of public space that is emboldened by policies that further fragment the city. Other authors like David Harvey [3] have commented on the “urban restructuring through creative destruction” (The Right to the City, 2013) and the consequent spatial fragmentation which increases social inequality and environmental degradation. Just the very recent COVID19 pandemic has shown a harsh light on the jarring inequality of healthcare infrastructure, public safety and sanitation that exists in modern society.

1.1 Fragmented Infrastructure Magnifying Inherent Prejudice

Graham and Marvin discuss at length the practices of splintering urbanism and the influence of liberalization, new technology and privatization on networked infrastructure. Understanding how unbundled infrastructure networks connect valuable locations more actively and aggressively while simultaneously disengaging from less valuable locations was a key component of this endeavour. Twenty years later, this theory of theirs was further emphasized by the differential mobility experienced during and after the COVID-19 pandemic. This differential mobility highlights the existing power structures and hierarchies breeding in society [4, 5]. The pandemic was an exhaustive global experience, a distinctive moment in history that saw every facet of society, every class, race, nationality, and corner of the planet share a common experience. During such a rare occurrence that gave divided groups a common ground that cut across their boundaries, one would have expected a demonstration of mutual support and international brotherhood. While there were many instances that exhibited this brotherhood, it was also a time that brought a lot of the underlying prejudices of society and human nature to

the forefront. The need to find a scapegoat to place blame on for a negative circumstance is a characteristic of being human, which has both cognitive and social implications [6]. During social phenomena that trigger this need, this blame is often placed on groups that are already stigmatized in society. For the COVID-19 pandemic, various groups suffered this consequence, from migrant labourers to queer communities, all highlighting various racial, social, political, and classist biases of society. This disparity further influenced their ability to access and use networked infrastructures that sustain the life systems of civilization.

This differential mobility experienced by the various sections of society magnified the urge of anthropologists to explore various overlapping “regimes of mobility” where movement was decreed as “normal” or “criminal” based on the people engaging in the movement, instead of objectively the movement itself [7]. This subjectivity was necessary as well, since there is a lot of context and nuance to what made the movement “normal” or “criminal”, particularly focused on the needs of the individual and the state. But this was also extremely dangerous, as giving the state too much control over what constitutes as crucial mobility led to a situation where movement was mostly only authorized for things that the state deems crucial to the survival of the collective and their biased perception of it [4]. This discriminatory experience of infrastructure cannot be more evident than in the case of migrants across countries and continents during and after the pandemic. On the one end, the immediate lockdown issued by the Government of India without adequate forewarning or support system in place resulted in millions of migrants being left stranded and compelled to walk hundreds of kilometres back to their villages due to the lack of access to transportation. This harrowing episode of the pandemic resulted in hundreds of preventable deaths that were purely due to the lack of infrastructural and governmental systemic support in the face of a crisis [8]. Authors like Sheller have even wondered if this massive eviction is a sign of what the response to the

climate crisis will look like in megacities of the immediate future, which attract large populations in informal settlements and serve as systems for regulating human mobilities [4]. It can be seen as a forewarning of the actions of the current capitalistic system in aggravating the climate crisis resulting in the vulnerable communities of society having to face the brunt of the consequences of a problem they barely participated in, as is the way of the existing world.

In other countries like the U.S., for example, 50% to 75% of agricultural work is performed by undocumented immigrants, as are jobs in food processing facilities like meat processing plants, which continued despite the pandemic. These very migrant labourers were then classified as “essential workers” despite having no access to financial assistance, healthcare or sick days during a pandemic, while the state simultaneously blocked prospective immigrants from entering the

country and deported others [9]. This class warfare was, regrettably, made evident in many instances during the pandemic. The elite “panic fleeing” [10] to their luxury suburbs irrespective of the travel restrictions was another such instance, the consequence of which was again felt by the locals who had to now deal with the increased demand for the limited local resources. These paradigms of inconsistent mobilities were aggravated by the impositions levied on travel and transportation, during and post the pandemic [4]. Another community that often suffers unfair prejudice during pandemics, including the COVID-19, is the queer community because of their supposed promiscuity. These communities were tagged with derogatory labels like “super spreaders” highlighting the queerphobic connotations of such assumptions [4]. People in the lower socioeconomic echelons of society, those employed in the tertiary sector of the economy, those



Fig. 1 Differential mobility highlighting social prejudice [11].

who are impoverished, those who identify as a member of the LGBTQ+ community and people of colour were stigmatized unjustly as potential carriers of the malignant virus. The factual understanding that the virus is a non-living substance that indiscriminately infects did not manage to come through [12]. This shows the enduring pertinence of the dichotomy of splintered urbanism that “exacerbated inequality of access to infrastructure” [1] that Graham and Marvin elucidate in their book and its torrential repercussions that illuminate the racial, classist, gendered, and queerphobic social discrimination that exists.

1.2 Social Landscape of Technological and Digital Infrastructure

Today’s infrastructure of private privileged mobility corridors such as specialized entries at airports in accordance with levels of membership, restricted and exclusive communities, and elusive tax evasion through offshore accounts with residency perks to investors, all already control the movement of elites on a worldwide scale. This is exactly the experience of the city that the authors discuss in “Splintering Urbanism” [1]. They predicted that the physical infrastructure of numerous cityscapes around the globe would continue to disintegrate due to such trends, into expansive parcels, or bounded terrains that comprised of specialized and guarded clusters of commerce, expenditure, pedagogy, transit, trade, and health-care spaces, which, for obvious reasons, ended up being the most sought-after perk during the pandemic. The private and public arenas of these clusters are scouted with CCTV and restricted with security personnel that regulates their interactions with their surroundings, but the spaces themselves are all often oriented towards highway grids, international telecommunications networks, exclusive energy, and water network. As a result, they frequently ignore traditional street elevations and the larger urban fabric, carefully sieving out unappealing individuals or communities who are deemed unfit to gain access for employment, leisure,

recreation, or tenancy [1]. This cliquish segregation of infrastructure discussed by Graham and Marvin was experienced during the pandemic by various groups, like those discussed in the previous section, who were deemed unfit, such as the migrants, economically poor, daily wage workers, patients, and refugees, among others. This pattern of hunting for a person to blame roped in negative bias for China as well for being the origin of the virus. But doing so confines complicated causality to an over-simplified origin, tagging along vulnerable groups, and polices mobilities by using the opportunity to subject everyone to fiercely intrusive data monitoring surveillance through the tracking of connections and activities, that were prior to the pandemic exclusively linked with some of the most dubious forms of surveillance [4]. While the following quote from the book was written eighteen years before the pandemic, its contextual relevance even in such a unique circumstance rings true.

“To support and enforce such processes of change, electronic consumption and surveillance systems, with increasing degrees of automation, threaten to provide silent, invisible and pervasive networks which cybernetic ally police the boundaries between premium and marginalized network spaces, with unprecedented potential for exclusion.” [1]

This unprecedented potential for exclusion was particularly encountered in the digital and informational infrastructure during the pandemic. Even though the shutdown of transportation infrastructure was one of the most evident of the networks that splintered due to the pandemic, the digital and informational network had just as gigantic a role to play that might not have been as blatantly discernible. Nowadays the impact and reach of social media, mobile phone applications and the internet far surpass that of traditional media, which has its fair share of pros and cons [13]. It enabled governments to inform and warn citizens about potential risk zones by tracking the movement of infected people. This offered incredibly thorough geospatial data about the COVID-19 viral

transmission, which helped governments respond efficiently and guide people's behaviour. However, social media has also complicated the situation by making it harder for the public to ascertain which sources of information are trustworthy and which are not. The impact of digital infrastructure and information network was extremely evident during the pandemic response as the real time spread of misinformation outpaced the dissemination of information by public health organizations [14]. And while those who had access to digital infrastructure had to deal with the uncertainty of the factuality of the circulating information, the infrastructure itself also highlighted its underlying elitism. Digital urbanism on its own is a sphere that is exclusive in its usage. On Maslow's hierarchy of needs, for instance, the access and use of digital infrastructure and virtual space would rank in the third tier of social connections or 5th tier of self-actualization, not particularly a priority to those who do not have access to the basic tier 1 and tier 2 needs of physiology and safety, respectively. The pandemic was an occurrence that particularly made evident the role of the networked infrastructure of tier

1 and tier 2 needs, as the degree of impact of the crisis was often directly proportional to the ability of an individual or community to meet these needs.

While this exclusivity of digital network is undeniable, it was also a tool of global mobilization during the crisis. The potential mobilizing power of the internet was discussed by the authors in the conclusive chapter of their book and was proven to be practical even two decades later. Despite the perils of the inordinate amount of misinformation, the copious advantage of digital technology speaks for itself. It enabled an instantaneous and comprehensive inventory of resources that were curated to local contexts, mobilized assets such as oxygen tanks, medicines, capital and healthcare personnel across countries and states, supported digital diagnostics, targeted public health messaging, and assisted offline engagement [15]. Even though the growth of telecommunication and digital infrastructure was relatively novel during the publication of the book, the authors astutely managed to recognize its transformative power and the intrinsic relationship that physical urban landscapes would build with their virtual counterparts.



Fig. 2 Maslow's Hierarchy of needs [16].

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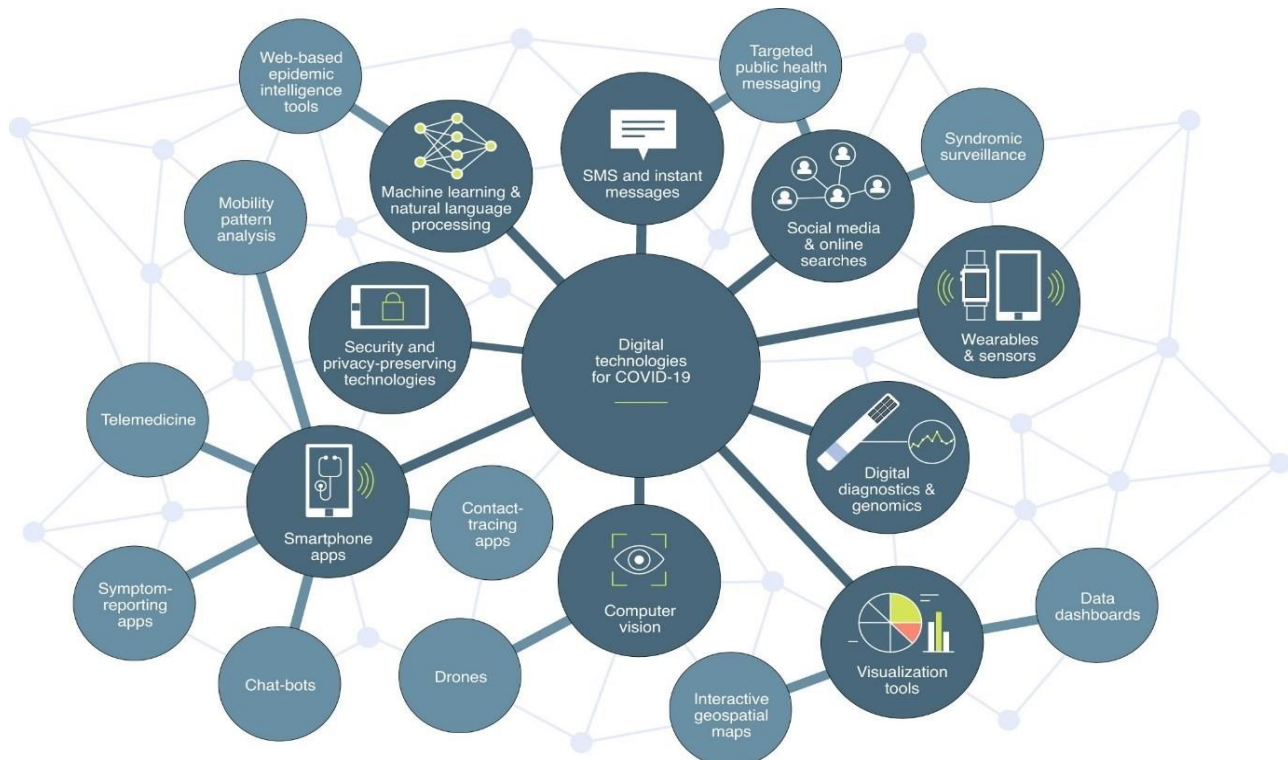


Fig. 3 The interconnected digital technologies used in the public-health response to COVID-19 [15].

2. Conclusion

While the authors explored the idea of building a new concept of urbanism, even they could not have predicted how this would manifest decades later. The pandemic triggered an enduring change in lifestyle and transformed the usage of networked infrastructures and city spaces. While this essay elaborated on two of these arenas of life, its overall ramifications have been extensive. The shift of work culture to working from home, the process of rebuilding the economy, making public transportation safer, adapting production and consumption patterns, addressing the insufficient healthcare infrastructure, responding to the climate emergency, have all been few of the various facets to cater to post the pandemic. The number of information, pedagogical, technological, and managerial employees who could work from home increased, but those whose occupations needed physical attendance were still forced to go to work, causing disparities in transit demand across social classes. Many such paradoxical realities of infrastructure and societal life seen during

and post the pandemic was another aspect that city planners and officials had to combat. While few critics like Olivier Coutard [17] (Placing splintering urbanism: Introduction, 2008) have questioned the universality of the themes discussed in the book like the “modern infrastructure ideal”, the pandemic is an excellent example that highlights the core similarities in the patterns of splintering in modern civilization around the world even while acknowledging the regional complexities that communities encountered while tackling the virus. Graham and Marvin themselves have clarified in the book that they do not assume the ubiquity of an oversimplified ideal but instead eye a thread that links the vastly diverse and idiosyncratic modernities, and it is this thread that they weave to tie their theory. This essay identifies the paradigms of pervasive disparity in the access and utilization of networked infrastructure that the pandemic revealed. This is exactly what Graham and Marvin predicted in infrastructures catering to or being moulded by various temporalities in the interaction of politics, society, economy, privatization, and the neo-liberal world.

While it is easy to romanticize the dichotomy of inequalities discussed in this essay as an inspiring dialogue of the burgeoning awareness and regulation of unfair heterogeneity, the authors have warned us how such a narrative inhumanely neglects the very real struggle for survival that these communities combat. Their priority is not creating a legacy of social resistance, but survival. Understanding and bettering this reality is the very purpose of striving to develop our epistemology of urban landscapes and this remains an ever evolving, perpetual cycle of learning, negotiation, and building. Urban theorists and geographers need to tackle the complex diversity of dynamic change that networked infrastructures must accommodate in the contemporary world. The rapid spread of the virus and its global consequence on every branch of civilization amplifies the continuing relevance of the pioneering principles of “Splintering Urbanism” [1] in assisting this endeavour.

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